



FOR THE  
HOME  
OF  
TODAY

CRANE

PLUMBING AND HEATING

WATER SYSTEMS, WATER HEATERS, WATER SOFTENERS

# AN INVITATION

To simplify the selection of plumbing and heating products for your new home Crane Co. cordially invites you to visit its exhibit rooms. Here you will find the latest fixtures, attractively displayed, and representatives in attendance who will be pleased to advise you. Ask your architect or your contractor to take you to the nearest Crane exhibit room in any of the following cities:

**ALABAMA**  
BIRMINGHAM.....2000 Fifth Ave.  
MOBILE.....300 N. Royal St.

**ARIZONA**  
PHOENIX.....233 S. First Ave.  
TUCSON.....35 Toole Ave.

**ARKANSAS**  
FT. SMITH.....521 S. Ninth St.  
LITTLE ROCK.....515 E. Second St.

**CALIFORNIA**  
HOLLYWOOD.....950 N. Highland Ave.  
LONG BEACH.....824 W. Anaheim St.  
LOS ANGELES.....(See Hollywood)  
OAKLAND.....346 Ninth St.  
PASADENA.....321 South Broadway  
SACRAMENTO.....1227 Front St.  
SAN BERNARDINO.....110 South "E" St.  
SAN DIEGO.....1138 India St.  
SAN FRANCISCO.....301 Brannan St.  
SANTA ANA.....2nd and Main Sts.  
SANTA BARBARA.....136 State St.

**COLORADO**  
DENVER (Crane-O'Fallon Co.)...1631 Fifteenth St.  
GRAND JUNCTION (Crane-O'Fallon Co.)...601 Pitkin Ave.  
PUEBLO (Crane-O'Fallon Co.)...216 W. Third St.

**CONNECTICUT**  
BRIDGEPORT.....302 John St.  
HARTFORD.....710 Windsor St.  
NEW HAVEN.....365 Orchard St.

**DISTRICT OF COLUMBIA**  
WASHINGTON.....1018 Connecticut Ave.

**FLORIDA**  
JACKSONVILLE.....1007 W. Bay St.  
MIAMI.....85 N. W. Tenth St.  
MIAMI BEACH.....1030 Lincoln Road  
TAMPA.....1405 Twiggs St.  
WEST PALM BEACH.....601 Lantana Ave.

**GEORGIA**  
ATLANTA.....Washington St. Viaduct  
MACON.....500 Broadway  
SAVANNAH.....14 W. Broad St.

**IDAHO**  
POCATELLO.....756 S. First Ave.

**ILLINOIS**  
AURORA.....544 S. Lake St.  
CHICAGO.....836 S. Michigan Ave.  
EVANSTON.....1224 Emerson St.  
ROCKFORD.....800 S. Main St.  
SPRINGFIELD.....921 E. Monroe St.  
WAUKEGAN.....1219 Glen Rock Ave.

**INDIANA**  
EAST CHICAGO.....1004 Chicago Ave.  
EVANSVILLE.....118 S. E. Eighth St.  
INDIANAPOLIS.....113 E. Vermont St.  
MUNCIE.....610 S. Jefferson St.  
SOUTH BEND.....1616 S. Franklin St.  
TERRE HAUTE.....209 Ninth St.

**IOWA**  
DAVENPORT.....217 E. Second St.  
MASON CITY.....19 Eighth St., S. E.  
SIOUX CITY.....6th and Nebraska Sts.

**KANSAS**  
WICHITA.....624 E. First St.

**KENTUCKY**  
LEXINGTON.....544 W. Main St.

**LOUISIANA**  
NEW ORLEANS.....146 Baronne St.  
SHREVEPORT.....1320 Winston St.

**MAINE**  
PORTLAND.....70 St. John St.

**MARYLAND**  
BALTIMORE.....17 W. Franklin St.

**MASSACHUSETTS**  
BOSTON.....48 W. First St., South Boston  
SPRINGFIELD.....60 Cypress St.  
WORCESTER.....45 Green St.

**MICHIGAN**  
DETROIT.....4498 Cass Ave.  
FLINT.....155 Lewis St.  
GRAND RAPIDS.....56 Grandville Ave., S. W.  
JACKSON.....409 Hupp Ave.

**MINNESOTA**  
DULUTH.....102 Lake Ave., S.  
MANKATO.....510 S. Pike St.  
MINNEAPOLIS.....400 Third Ave., N.  
ST. PAUL.....356 Broadway

**MISSISSIPPI**  
JACKSON.....176 N. Gallatin St.

**MISSOURI**  
KANSAS CITY.....1532 Grand Ave.  
ST. LOUIS.....30 S. Sixteenth St.

**MONTANA**  
BILLINGS.....30th St. and First Ave., S.  
GREAT FALLS.....Great Northern Ry. Yards

**NEBRASKA**  
GRAND ISLAND.....115 E. Front St.  
LINCOLN.....317 S. Ninth St.  
OMAHA.....309 S. Nineteenth St.

**NEVADA**  
RENO.....401 E. Fourth St.

**NEW JERSEY**  
ATLANTIC CITY (National Exhibit Rooms)  
CAMDEN.....2401 Boardwalk  
NEWARK.....134 Federal St.  
TRENTON.....90 South St.  
TRENTON.....50 Escher St.

**NEW MEXICO**  
ALBUQUERQUE (Crane-O'Fallon Co.)  
.....612 N. First St.

**NEW YORK**  
ALBANY.....North Broadway  
BINGHAMTON.....21 Washington St.  
BUFFALO.....201 Church St.  
HEMPSTEAD.....209 Main St.  
NEW YORK.....19 W. 44th St.  
ROCHESTER.....200 South Ave.  
SYRACUSE.....760 W. Genesee St.  
UTICA.....326 Broad St.  
WHITE PLAINS.....41 Hamilton Ave.

**NORTH CAROLINA**  
ASHEVILLE.....34 Battery Park Pl.  
CHARLOTTE.....1307 W. Morehead St.  
GREENSBORO.....205 Lyndon St.

**NORTH DAKOTA**  
FARGO.....636 Northern Pacific Ave.

**OHIO**  
CANTON.....210 Piedmont Ave., S. E.  
CINCINNATI.....824 Broadway  
CLEVELAND.....6215 Carnegie Ave.  
COLUMBUS.....67 N. Front St.  
LIMA.....207 S. Central Ave.

**OKLAHOMA**  
MUSKOGEE.....302 Commercial St.  
OKLAHOMA CITY.....705 W. Main St.  
TULSA.....623 E. Third St.

**OREGON**  
PORTLAND.....1103 S. W. Alder St.

**PENNSYLVANIA**  
PHILADELPHIA.....1301 Locust St.  
PITTSBURGH.....Gulf Building  
READING.....212 S. Eighth St.

**RHODE ISLAND**  
PROVIDENCE.....245 W. Exchange St.

**SOUTH CAROLINA**  
GREENVILLE.....218 Pendleton St.

**SOUTH DAKOTA**  
ABERDEEN.....324 Railroad Ave., S. E.  
SIOUX FALLS.....326 E. Eighth St.

**TENNESSEE**  
CHATTANOOGA.....1317 Chestnut St.  
KNOXVILLE.....523 W. Jackson Ave.  
MEMPHIS.....254 Court Ave.  
NASHVILLE.....530 Eighth Ave., S.

**TEXAS**  
BEAUMONT.....820 Fannin St.  
CORPUS CHRISTI.....1212 Gavlilan St.  
DALLAS.....814 Young St.  
EL PASO (Crane-O'Fallon Co.)...1609 Texas St.  
HARLINGEN.....201 West "C" St.  
HOUSTON.....2205 McKinney Ave.  
SAN ANTONIO.....1200 E. Houston St.

**UTAH**  
OGDEN.....Twentieth St. and Wall Ave.  
SALT LAKE CITY.....307 W. Second S.

**VIRGINIA**  
NORFOLK.....2 E. Twenty-second St.  
RICHMOND.....1223 W. Broad St.

**WASHINGTON**  
SEATTLE.....419 Second Ave., S.  
SPOKANE.....126 S. Post St.  
TACOMA.....1209 South "A" St.

**WEST VIRGINIA**  
CHARLESTON.....502 Broad St.

**WISCONSIN**  
MADISON.....645 Williamson St.  
MILWAUKEE.....225 W. Capitol Drive  
OSHKOSH.....37 Market St.

**WYOMING**  
CASPER (Crane-O'Fallon Co.)...802 East "C" St.



# CRANE MATERIALS

## Cost No More

*Why accept less in quality and beauty?*

SO widespread is the preference for Crane plumbing fixtures, so universal is the reputation of Crane quality, there is an impression that a Crane installation is expensive. That is not so. Style for style, material for material, grade for grade, Crane fixtures and fittings cost no more than others.

Frequently, in fact, a Crane bathroom or kitchen costs less than others. The exact machining of the fittings and the precise engineering of all materials facilitate the installation. In the long run, there is no question about greater economy. Dependable in design, engineering, and materials, Crane fixtures and fittings serve longer and save more.

Regardless of what make of plumbing you have installed, in the end you will pay as much as Crane quality and beauty and convenience would cost you . . . you might as well get them.

# CRANE

836 SOUTH MICHIGAN AVENUE  
CHICAGO

*Branches and Sales Offices in 160 Cities*



# THE MARSHALL GROUP

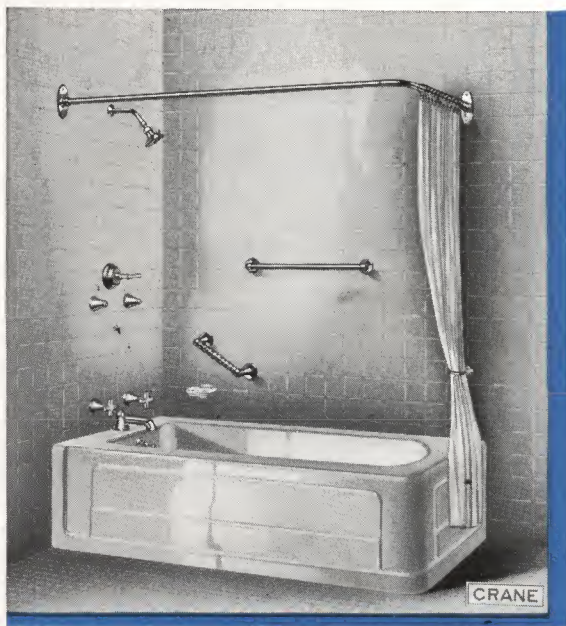
styled for luxury  
and distinction

Initiator of the trend toward more beautiful bathrooms, Crane is the leader in contributing charm and convenience as is amply evidenced by this room. Here is modern styling at its best, chaste and not freakish. Here are numerous new Crane-originated developments to serve your comfort.



The fixtures in orchid pink (No. 400) set the color motif for this room. The border in the tile walls and the window and the shower curtains echo the same hue. The floor in black and raisin contrasts effectively.

**C 3205-LC51 MARSHALL** *porcelain enameled cast-iron corner bath*. Spacious, and with a broad flat bottom, which precludes slipping, and equipped with hand-hold bars, it is an ideal tub for a shower. The shower shown has a mixing valve which blends water to any desired temperature. 5½' long, 36¼" wide.



**C 136 CORWITH** *vitreous china lavatory*. A beautiful fixture of today. Notice the large bowl and the chromium legs from which unique towel bars curve outward. 24"x21", 27"x22", 30"x24", 33"x24", 36"x24", and 42"x24".



**C 10482 MONADA** *quiet-acting closet*. Cast of vitreous china in a single piece, its graceful contours hold no place for dust and dirt to lodge. Siphon-jet, its action is thorough and quiet. The shelf top on the tank offers new convenience.



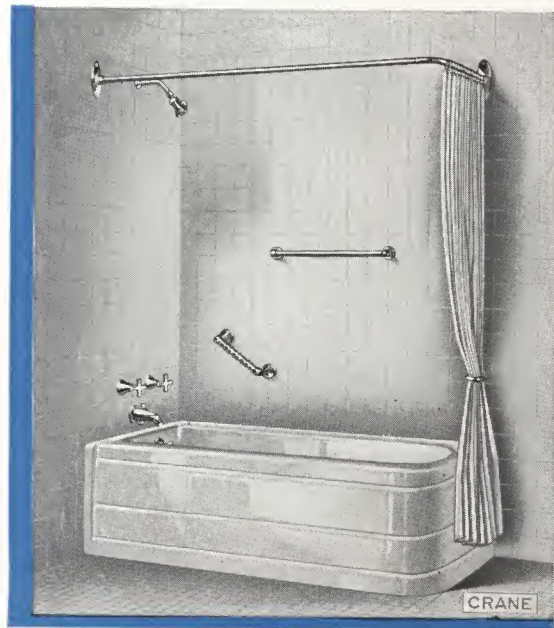


The Pale Jade (No. 415-A) of the fixtures and the cream of the tile harmonize in this decorative scheme. In comparatively small space, a most attractive and convenient bathroom arrangement has been achieved.

## THE CORWITH GROUP

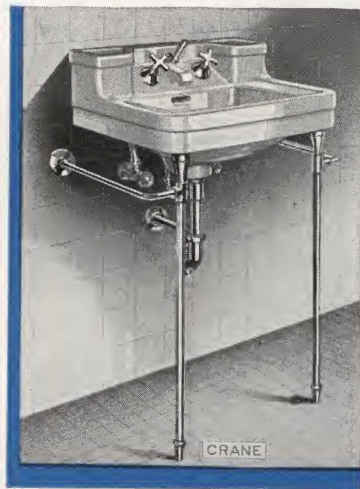
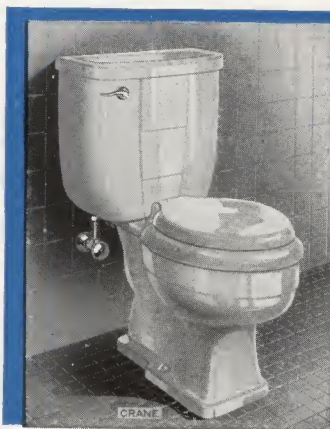
a widely approved  
ensemble of  
related designs

This bathroom is in keeping with the interior decoration of a home that is truly charming. The furnishings of no other room can boast more graceful lines, more harmonious colorings. Crane quality throughout assures that your original pride in the room will grow into lasting satisfaction.



C 10536 SANTONIA *vitreous china* closet. A new elongated rim serves both comfort and sanitation. The siphon jet action is free from embarrassing noise and very thorough. The tank top forms a useful shelf.

C 3284-LC93 CORWITH *porcelain enameled cast-iron* corner bath. Highlights on the receding planes emphasize the beauty of the contours. The flat bottom, low sides, and hand-hold bars make the CORWITH a safety-first shower tub. It is equipped here with a RIVAL compression shower. 4½', 5', 5½', and 6' lengths.



C 181 COMPEER *vitreous china* lavatory. Beauty and utility vie in this delightful new design. Toilet accessories rest conveniently on the shelf back. The beveled panel keeps the fittings out of the way and in the most accessible position. The graceful chromium legs are fitted with HANDY towel bars. 22x18".



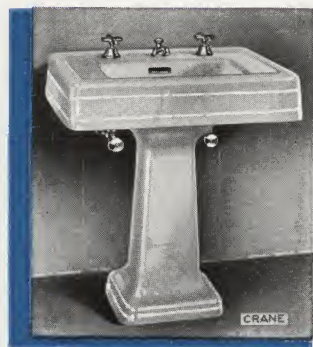
# A MATCHED GROUP

high in quality—  
medium in price

And here is conclusive evidence that a Crane bathroom is not expensive. In this room all the quality, loveliness, and convenience are present which have won so wide a preference for Crane fixtures. Don't forget—enduring beauty and utility will add much to economy in the long run.

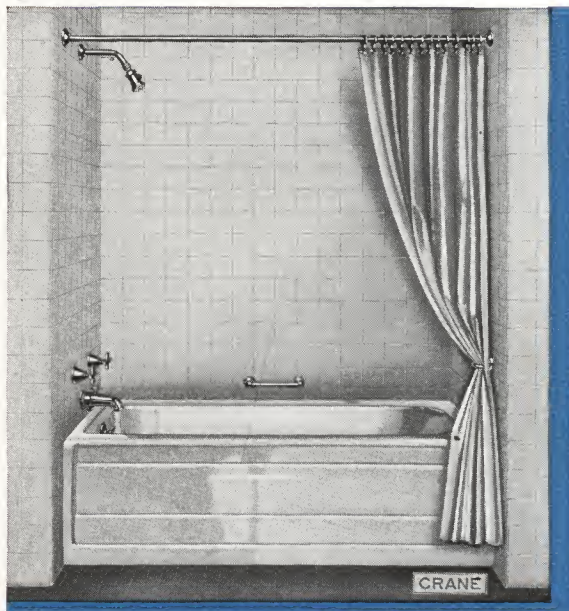


One family of colors, ranging from the deep brown of shower curtain and floor to the Citrus Yellow (No. 410) of the fixtures, blend with a most artistic effect. The recessed bath adds to the interest of the room.



**C 2066 CORWITH** *porcelain enameled cast-iron pedestal lavatory*. From the famous CORWITH family of fixture designs, this lavatory is molded in receding planes. Its proportions are unusually large. The rectangular bowl is spacious. Fitted with RIVAL metal spout supply and pop-up waste fixture. 24x20" and 27x22".

**C 3308-LC93 CORWITH** *porcelain enameled cast-iron recess bath*. Roomy to splash about in, safe to shower in, this splendid tub is a comfort to own and use. And a contribution to the decorative beauty of the bathroom, besides. With it is shown the invigorating RIVAL compression shower. 4½', 5', 5½', and 6' lengths.



**C 10991 MAURCLONIA** *plain rim close-coupled vitreous china closet*—the latest refinement in water closet design. NEUMODE tank and bowl are bolted together in a single unit, eliminating the unsightly flush connection. Closet has efficient siphon action.

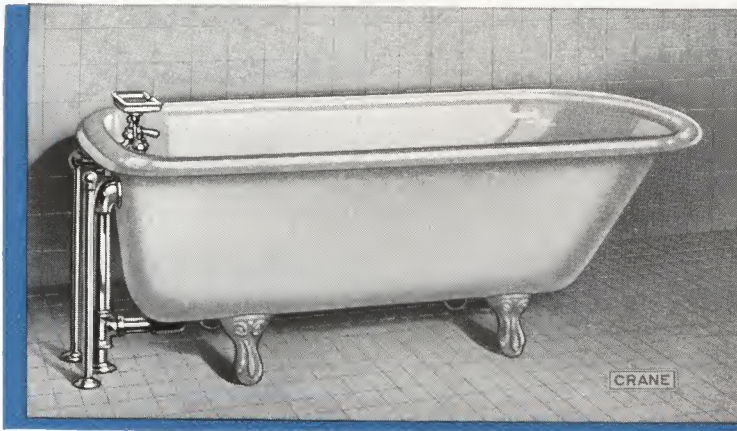


# FOR ECONOMY AND SERVICE



Not only in first cost do you save on this group of Crane fixtures. You keep on saving the cost and trouble of repairs and replacements for many, many years.

Even where price is the main consideration, quality and design need not be sacrificed. In the least costly materials, as in the most elaborate, you can depend upon Crane. The same experience, the same care in making, the same searching factory inspection, goes into every piece.



**C 3442-T66 DORIS** *porcelain enameled cast-iron bath.* A thoroughly satisfactory tub that requires no fitting into the wall, corner, or recess. 4', 4½', 5', 5½', and 6' lengths.



**C 2168 COLORADO** *porcelain enameled cast-iron lavatory.* Hung on the wall with concealed hangers, space is saved, and no obstruction on the floor hinders cleaning. Equipped with the new RIVAL fittings with metal spout and pop-up waste. 21x17" and 24x18".



**C 11125-J NEUTON** *vitreous china closet.* The washdown jet action assures thorough cleaning and complete sanitation. The IPSWICH tank has a six-gallon capacity providing abundant water supply.



# THE CHARM OF COLOR

Very definitely, the preference of decorators today is toward delicacy in coloring. Subtle shades are preferred to heavy or theatrical ones.

Reflecting this trend, delicate pastel tints predominate in the Crane color range . . . orchid pink, India ivory, citrus yellow, pale jade, Lucerne blue, and Sun Tan. These are the chosen colors, available in vitreous china, porcelain (all-clay), and porcelain enameled cast-iron. In addition, gleaming black and a rich Persian red appeal to the more sophisticated.

Because of the dissimilar characteristics of the materials, exact duplication of shades is not possible. The slight variations in tone in no way detract from the total effect. In fact, they enhance the general artistic scheme.

The colors of the Crane rainbow are:

No. 400-A	Orchid Pink	No. 425-A	Lucerne Blue
No. 405	India Ivory	No. 450	Black
No. 410	Citrus Yellow	No. 485	Persian Red
No. 415-A	Pale Jade	No. 495	Sun Tan

No color chart could give an idea of the beauty, life and sheen of these colors. To see these colors as they really are, visit your nearest Crane exhibit room.

## CRANE VITREOUS CHINA SHOULD NEVER GROW OLD

Vitreous china is recognized as the most sanitary material of which plumbing fixtures can be made. The same material, the same color, through and through, Crane vitreous china should never lose its original beauty. Its gloss finish is non-porous, extremely hard and smooth, unaffected by the chemical action of soaps and ordinary acids. It is as easy to keep clean as a window glass or a porcelain plate.

## CRANE ACID-RESISTING PORCELAIN ENAMEL STAYS IMMACULATE

Withstanding stains and injury from fruit juices and ordinary acid, easy to keep clean, long retaining its original glistening luster, Crane acid-resisting enamelware is an improvement that has been eagerly welcomed. Its especially hard surface, not affected by tile cleaners' acids, is desirable for kitchen fixtures because the juices of lemons, tomatoes, and other acid fruits leave it unblemished. It is superior, too, for bath and lavatory ware.

## THERE'S A LASTING SHEEN TO CRANE CHROMIUM PLATING

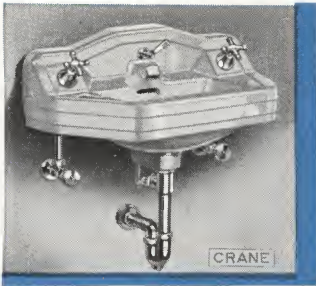
Always shining and untarnished, Crane chromium plating is kept as spotless as the enamel fixtures with just a wipe of a damp cloth. Not only appearance is served by this finish. It is durable, resisting the worn appearance that soon disfigures nickel and other plating.



# POWDER ROOM

a room  
every woman covets

An adjunct to the art of entertaining, important to the comfort of feminine guests, the powder room is an essential to the modern home. Such a room should be included in the plans of every new residence. There is usually, somewhere on the plans, a closet leading from the reception hall or from the bedroom that can be easily converted into a powder room by any architect.



*C 641 Design 40*

The CROMWELL is a smartly designed space-saving lavatory. With its new rectangular basin and fittings mounted on slanting panels, it is ideal for powder rooms.



*C 10482*

The one-piece MONADA closet, modern in design, and with the all-important quality of quiet, sure action.



*No. 50 Crystal fittings*



*No. 40 Octagonal fittings*



*No. 45 Fluted fittings*



*Square arm all-metal fittings*

## ORNAMENTAL TRIMMINGS

Crane has commissioned leading artists and metal artisans to design unusual trimmings to contribute exclusive beauty to bathrooms.

Four of the most popular of these jewel-like ornamental trimmings are shown here. They are available in chromium, gold, and silver plate.



# LAVATORIES OF TODAY

- distinctive and modern designs

In Crane lavatories of today two ideals are attained: beauty of design and time-saving convenience. The latest styles from Crane designers are here illustrated.



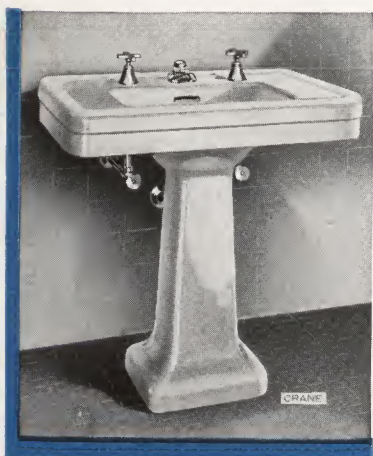
C 171

Modern angles relieved by graceful curves distinguish this CORWITH on chromium legs. Fitted with the new RIVAL supply and pop-up waste fixture. 23½x17½".



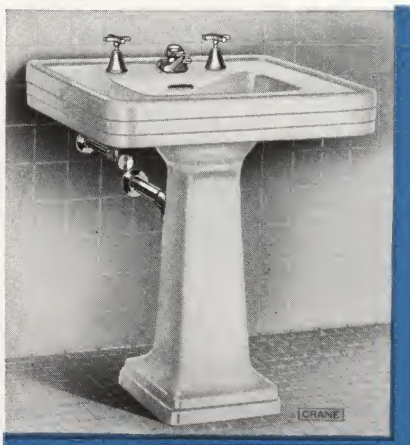
C 154

Practical and conveniently placed HANDY towel bars add to the utility and appearance of this NORWICH on RIVAL legs. Fitted with RIVAL supply and pop-up waste. Sizes 20x18" and 24x21".



C 255

NORWICH—a modern design, vitreous china lavatory on pedestal with LEVER ACTION SECURO quick draining supply and waste fixture. Sizes: 24x21", 27x22", and 30x24".



C 221

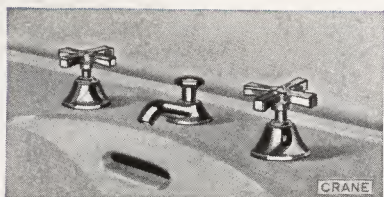
One of the popular CORWITH family of fixtures. A massive fixture on pedestal, designed with receding planes that high-light the beauty of each line. In three sizes: 24x21", 27x22", and 30x24".



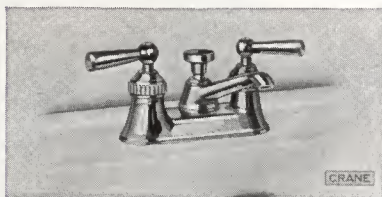
C 172

CORWITH-COMPEER. Beauty, utility and convenience blend in this lavatory, with shelf back and beveled panel for the fittings. Sizes: 22x18" and 27x22".

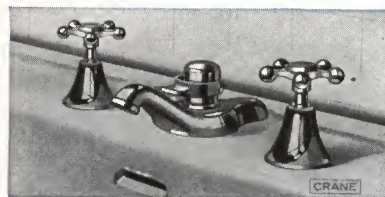
## LAVATORY TRIMMINGS



WM11 RIVAL lavatory supply and waste fixture—modern in design and dependable.



V12 RAINIER lavatory supply and waste fixture. Attractive, modern and sturdy, it leaves most of the lavatory slab space free for use.



L9 LEVER ACTION SECURO fixture; quick-draining waste; all wearing parts renewable.



# LAVATORIES FOR EVERY PURSE AND HOME

• newest designs

**C 2001  
CORWITH-  
TUCAWAY  
cabinet lavatory**

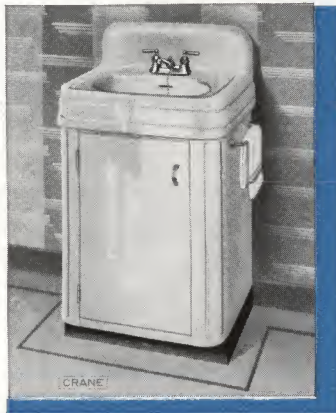
Few modern bathrooms have the necessary storage space for the articles in constant use, such as extra soap, towels and toilet accessories. This new fixture solves the problem cleverly by making use of the

space under the lavatory. The CORWITH-TUCAWAY, an excellent example of the cabinet lavatory, has an all-steel cabinet with towel bars. The lavatory is of latest design and is constructed of porcelain enamel fused on cast iron, with the RIVAL supply and waste fixture,—a beautiful, practical combination. Size 24x20". A larger size, 27x22", with two-door cabinet, is also available.

No matter what your ideas may be, regardless of the limitations of your space or your purse, there is a Crane lavatory that exactly fits your needs. If the exact design you have in mind is not shown here, your plumbing contractor can supply it. Or you can see it at a nearby Crane Exhibit Room.

**C 2171 CABELO  
cabinet lavatory**

Of porcelain enameled cast iron with an integral back on an all-steel, single door cabinet. This smaller design has the CORONADA-LAVINET features of shelf-in-door, towel bars, and recessed base for toe space. RAINIER supply fixture, P.O. plug and rubber stopper. Size 21x17".



**C 1991  
CORONADA-LAVINET  
cabinet lavatory**

The LAVINET, like the CORWITH-TUCAWAY, provides generous storage space within its cabinet for articles used daily, and a special shelf-in-door feature allows for smaller toilet necessities. Side-hinged doors give easy access to the interior. The chromium plated hinges, handles and towel bars are easily cleaned. The lavatory, of porcelain enameled cast iron, has a rectangular basin with slotted overflow. Base of the cabinet is recessed for toe space. The compact RAINIER supply and waste fixture gives ample slab surface. Size 24x20".



**C 755 NORWICH vitreous china lavatory.** An integral back and a large rectangular basin are incorporated in the design of this china lavatory, cleaned as easily as a dinner plate. The RAINIER fixture, with which it is equipped, leaves a large, clear place on the slab. Sizes 18x15", 20x18", and 24x21".



**C 1223 DENTRIX dental lavatory.** A refinement dictated by good taste. Demanded by sanitation for today's bathroom. The DENTRIX is beautifully modeled in vitreous china for lasting whiteness and instant cleaning. Size 12x12".



**C 2254 CAROLINA.** A new porcelain enameled cast iron wall lavatory with low back, soap depression, and the CORWITH design apron. Fitted with RIVAL faucets and P.O. plug with rubber stopper. Size 19x17".

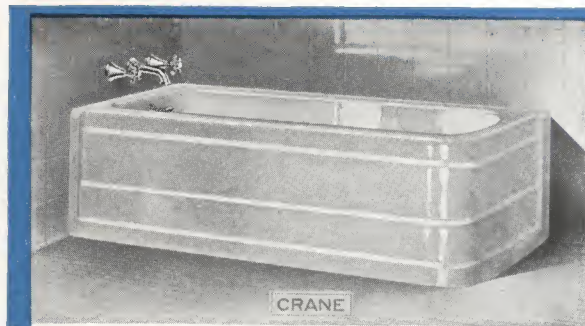


# BATHS OF BEAUTY

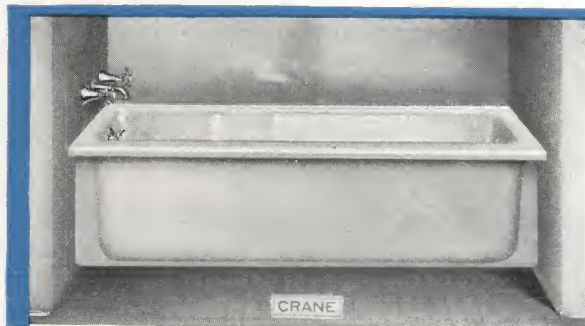
No royal castle ever boasted the luxury of bathing which is within reach of every household today. Crane has designed bathtubs of glistening cleanliness and charming contours. Their designs are modern; their fixtures, the last word in convenience. They are built to inspire that popular song, "Singing in the Bathtub."



**C 3350-LG30 CARLTON** *corner bath*—attractive and inexpensive built-in corner tub. The outside is painted, ready for tinting to match its surroundings, the inside is porcelain enameled. Furnished in 5 and 5½ foot lengths. Also available with outlet at exposed end of tub—catalogue number **C 3360-LG30**.

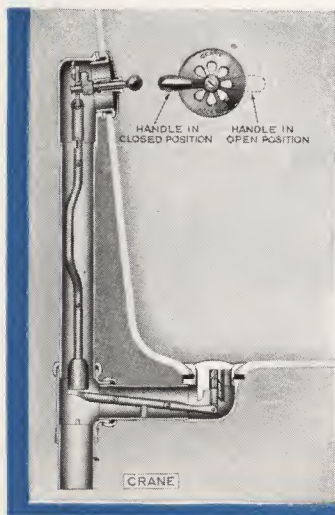
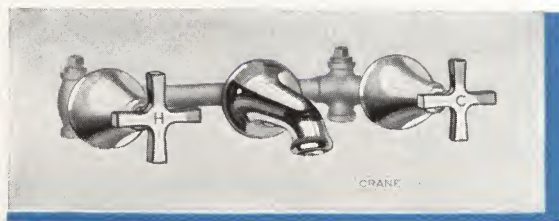


**C 3284-LG32 CORWITH** *corner bath*—the design that set a new style which has been widely imitated but never equaled. It comes in all styles for either right or left corner or recess and in 4½, 5, 5½, and 6-foot lengths.



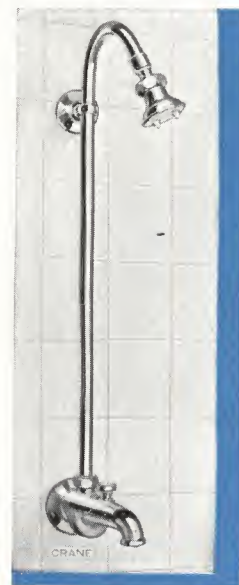
**C 3370-LG32 VERNA** *recess bath*—a modern and most moderately priced built-in tub. The inside is enameled, the outside is painted and may be tinted to match any scheme of decoration. 4½, 5, and 5½-foot lengths are supplied.

**C 33515-A** Every type of bath supply fixture is supplied by Crane. Here is one of the most popular styles. All the piping is completely concealed at the end of the tub. Only the smartly designed spout and handles are visible.



**C 33581-E ACCESSO** *waste*—an exclusive Crane achievement. Water used by the previous bather cannot back into the tub and contaminate the fresh supply. The ACCESSO is positive in action, tight, and trouble-free.

**C 4344-B ADDENDA** *shower*. Converts an overrim spout bath fixture into a modern shower and bath supply fixture. Permanently installed in a few minutes—no pipes to change, no walls marred. Equipped with the water-saving REFRESHOR shower head with ball joint.







C 4261-B



C 4875-B

**REFRESHOR Easy-Clean Shower Head** gives brisk, splashless flow. Uses up to 50 per cent less water. Single twist opens face for cleaning without tools. Straight or ball joint. Volume control if desired.

C 4261-B

**The RIVAL Concealed Shower.** Big 4-inch head swings on ball joint in any direction. Face removable for cleaning.

# A SHOWER IS A HEALTH TONIC

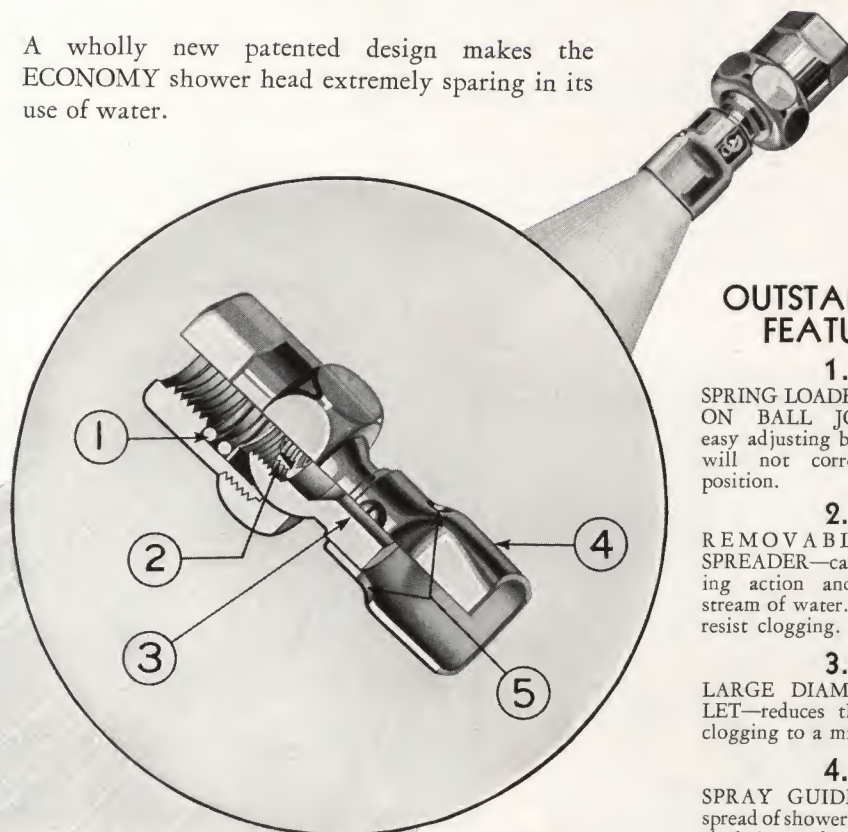
There is nothing to match the sheer pleasure of clean water coursing over your body. Cool in the morning, your entire being is awakened to a better day. Warm at night, jangled nerves are soothed, tense muscles relax, and sleep is lured. Every home, every tub should be equipped with a shower.

## New Crane "ECONOMY" Shower Head

Amazing tests show that this new Crane **ECONOMY** shower head uses less water at a given pressure than any other of the several heads tested—and still gives all the water you want. The elliptical shape of the spray fits the bathtub and is equally effective in a shower stall. Unlike the action of a circular spray, all of the water is directed at the bather, which means much less water is consumed in bathing—actually only one-third the amount used by an ordinary 4-inch spray head. The water is uniformly distributed.

Of solid brass, heavily chromium plated, the **ECONOMY** head costs much less than ordinary shower heads. Furnished for  $\frac{3}{8}$ " or  $\frac{1}{2}$ " pipe, with ball joint only.

A wholly new patented design makes the **ECONOMY** shower head extremely sparing in its use of water.



C 4871-B

### OUTSTANDING FEATURES

**1. SPRING LOADED PACKING ON BALL JOINT**—makes easy adjusting ball joint that will not corrode in one position.

**2. REMOVABLE BRASS SPREADER**—causes a swirling action and breaks up stream of water. Large holes resist clogging.

**3. LARGE DIAMETER OUTLET**—reduces the danger of clogging to a minimum.

**4. SPRAY GUIDE**—controls spread of shower spray. Elliptical shape of outlet forms an elliptical shower spray that is especially suited to showers installed over bathtubs—directs all of the water at the bather.

**5. AERATOR FEATURE**—causes air to be drawn into shower stream and gives a soothing effect on the bather.

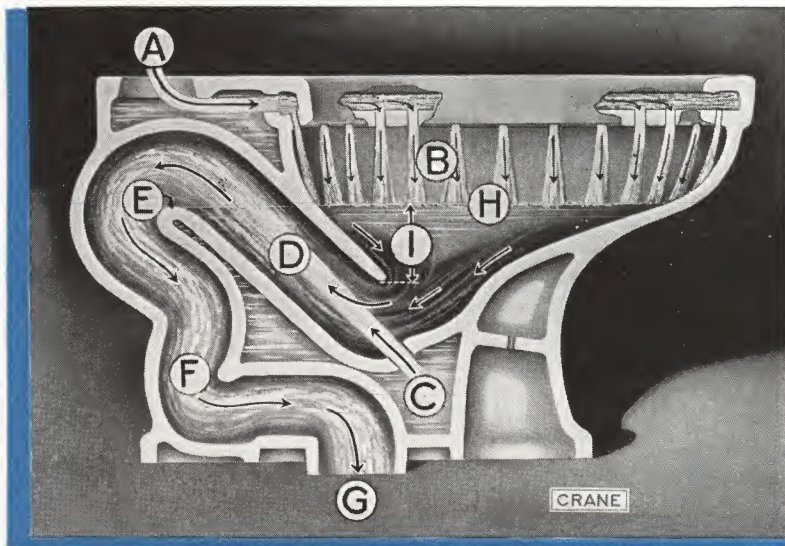
**SAVES WATER  
CONTROLS SPRAY  
RESISTS CLOGGING  
COSTS LITTLE**



# YOU SHOULD CHOOSE A CRANE SIPHON JET CLOSET

The CRANE siphon jet closet has a double action—the push caused by a jet and the pull created by the siphon action.

When the water is flushed, it rushes around the hollow rim at the top of the bowl and down through holes, scrubbing and cleaning the sides, as at (B). At the same instant, a strong jet (C) from the bottom shoots back and up (D) toward the outlet, forcing the water and waste over the dam (E) and into the downward passage (F) with a contortional travel. At once a strong pulling siphonic action is started which completely empties the bowl. As the water and waste matter are drawn from the bowl, air enters the outlet passageway (D, E, F) breaking the siphonic action. Because this air follows the water instead of coming up from the drain pipe (as in some closets), none of the sewage can be washed back. The outlet passage is immediately sealed by the refill. This prevents the return of gas and odors from the outlet passage. Crane siphon jet closets also have a larger outlet passageway, a larger water surface, and a deeper water seal than the ordinary type.



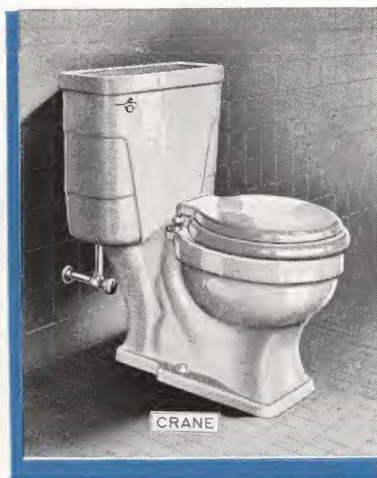
CRANE SIWELCLO — the latest water closet embodying every important development. Designed with a seat curved for correct posture. Exceptionally quiet and positively thorough. The tank has a convenient shelf top. There is no more hygienic, efficient, or attractive closet on the market. Only Crane offers these exclusive advantages.

**C 10384** CRANE SIWELCLO closet molded of sparkling, glass-smooth, non-staining vitreous china, with hygienic elongated rim in the newest design.



**C 10536**

**SANTONIA.** Efficient and sanitary, the SANTONIA is one of the recent Crane advancements in closet design. Vigorous siphon jet action. The closet and shelf top tank are closely coupled into a stanch unit. The elongated opening is sanitary to a new degree. Specify C 10542 for plain rim closet.



**C 10945-A**

**LEXEL.** A harmonious blending of structural and architectural treatment—vitreous china tank and bowl are cast in one piece. Curved edges of tank back make it adaptable for corner or free-standing installations.



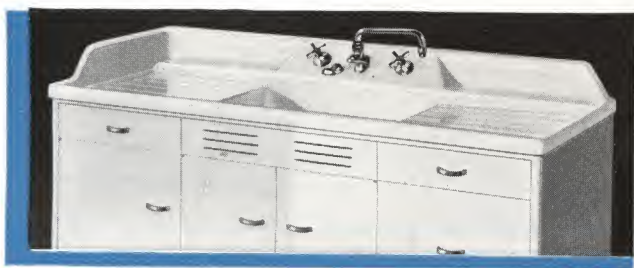
**C 11125-JA**

**NEUTON.** A less expensive but satisfactory closet. The washdown action with jet is efficient. The NEUMODE tank of six-gallon capacity supplies abundant water for complete sanitation.





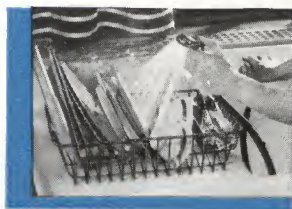
**C 19150.** The SUNNYDAY *acid-resisting porcelain enameled cast iron sink* for installation with or without adjoining cabinets. Baked enamel finish steel cabinet provides ample storage space for cutlery, pans and linens. A garbage receptacle and a towel dryer can be incorporated in the cabinet at a slight extra cost. Size 60x25 $\frac{1}{4}$ ".



The cup strainer of the UTILITY strainer can be lifted out and emptied—its liberal size makes it easy to flush clean. A hand operated stopper closes the sink outlet, converting the sink basin into a dishwashing compartment.



A retractable spray, pulled out from the fixture panel, reaches every inch of the sink with a flushing spray. It is an important help in washing dishes and cleaning vegetables.



## THE SUNNYDAY CABINET SINK

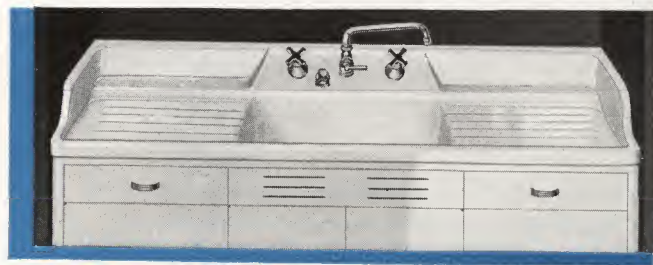
### • The scientifically planned sink

The new SUNNYDAY sink is the result of extensive research into the science of kitchen planning. By analyzing the functions of the sink and adapting the design precisely to those functions it was possible to develop the SUNNYDAY sink, with every feature demanded by scientific use. This sink, with its cabinet, sounds the keynote of the scientifically planned kitchen. Since the kitchen activities hinge upon the sink, it should be the first consideration in building or remodeling for kitchen efficiency.



A lever directs the water either through the swinging spout or the retractable spray. Note the convenience of the angle fixture panel. The SUNNYDAY fixture can be furnished without spray and transfer valve if desired.

**C 19151-L.** The SUNNYDAY *sink* is available with left end return for installation in left hand corner. Full rounded corners assure an easily cleaned surface. Size: 60x25 $\frac{1}{4}$ ". Specify C 19151-R with right end return.



**C 19153.** The SUNNYDAY *sink* with its 4-inch back and two return ends for recess installation. Size 60x25 $\frac{1}{4}$ ".



The drainboards of the SUNNYDAY sink are depressed one inch for free use of the rinsing spray on dishes or flushing sink surfaces without water surging over the rim.



# THE SUNNYSIDE CABINET SINK

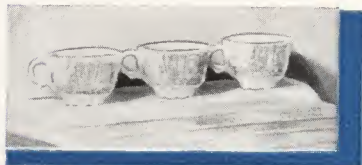
- all that a sink should be

Few kitchens have the necessary storage space for articles in daily use. In the SUNNYSIDE you will find enough space for many of them, and you'll have work space for the greater kitchen tasks.

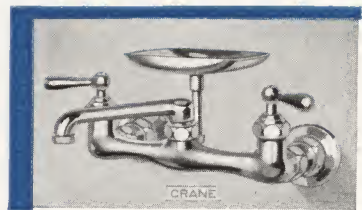
Its unusual features—low back—safety drain ledges—shallow-groove drainboards—deep basin—roomy storage bins—IMPROVED AGILIS double faucet—glistening enamel finish—are but few of the many reasons every home owner will want it.



**C 19162.** The compact SUNNYSIDE for individual installation with a **C 19990 RIVAL** cabinet as a unit without adjoining cabinets. Has ample storage space for cutlery, pans and linens. Size 60x25".



The level safety ledge—for draining and drying fragile glassware.



**C 32740-SN IMPROVED AGILIS faucet** with non-splashing swinging spout and metal soap dish. Hot and cold water, blended to the right temperature, can be directed where wanted. Its **NEWSLEEVE** trimmings and renewable seats permit quick replacement of all parts subject to wear.



**UTILITY** drain with removable cup strainer. Stopper converts sink basin for dishwashing.



**C 19170-D CORWITH** porcelain enameled cast iron sink with **C 19934** cabinet, a completely enclosed unit. Cabinet is all-steel welded construction with ample drawer and cupboard space. Recessed sub-base provides toe room. Cabinets have a durable twin baked enamel finish and black composition hardware.

**C 19179-LXY CORLAND** porcelain enameled cast-iron sink with single drainboard on right or left. Fitted with **UTILITY** hand-operated waste with removable cup strainer, and **IMPROVED AGILIS** double faucet. **C 19938** spacious all-steel cabinet. Size 52x24".



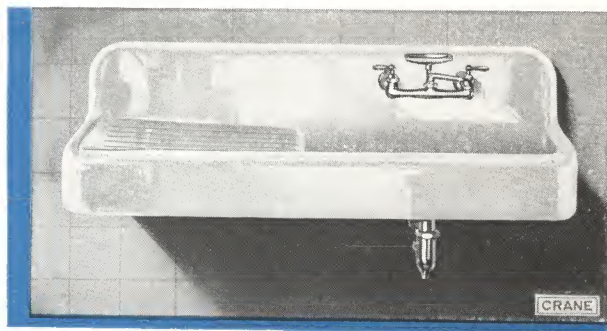


# PRESENTING A NEW FEATURE SINK

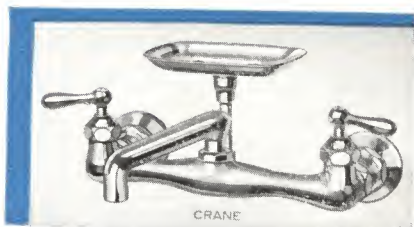
• in porcelain (all-clay)



C 19133-Y. Porcelain (all-clay) two-compartment sink with back, supported on two porcelain legs. Supply fixture is the IMPROVED AGILIS double faucet with swinging spout and removable soap dish. Size, 48 inches long and 24 inches wide. A regular C 19980 all-steel ADD-A-UNIT cabinet is illustrated in conjunction with this sink, providing adequate storage space for kitchen utensils. Its linoleum covered top is a convenient place for food preparation. Cabinet is 36 inches long; it can also be secured in 24 and 48-inch lengths.



C 19194-LY. Porcelain enameled cast iron sink with apron and a single drainboard which may be had at either right or left side. Has an eight-inch back to protect the wall. Moderate in price. 42x20", 52x20", 52x22". Also furnished with C 19948 all-steel cabinet.



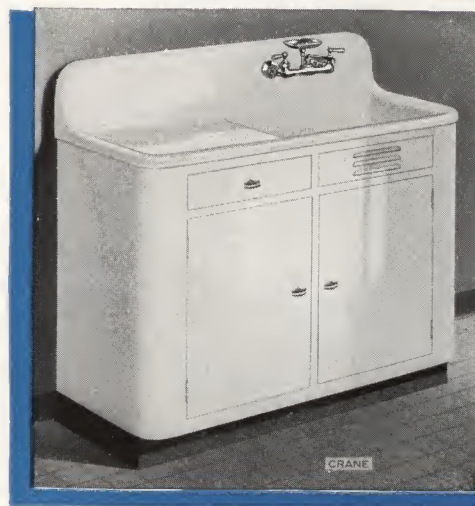
C 32751-S. RIVAL sink faucet with swinging spout and soap dish—just one example of the many refinements obtainable on Crane fixtures.

C 19230-LZ. Roll rim enameled cast-iron sink with either right or left single drainboard. C 19968 all-steel cabinet with baked enamel finish and recessed toe base. RIVAL double faucet with swinging spout. Economically priced. Sizes 42x20" and 52x20".

The Crane porcelain (all-clay) two-compartment sink is a practical fixture for use where additional dishwashing facilities are desired. Porcelain is an all-clay, thoroughly vitrified product with an impervious, glassy surface. Its sanitary and durable finish makes it an ideal material for plumbing fixtures. Here, too, are shown sinks of porcelain enamel on iron, most moderate in price.



C 19228. Double drainboard porcelain enameled cast-iron roll rim sink with C 19995 all-steel cabinet with DUO adjustable sub-base. Moderately priced with ample drainboard area and storage capacity. "RIVAL" double faucet. Size 60x22".





# HELPS FOR WASHDAY

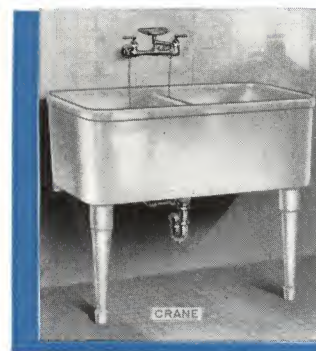
● The musty wash tub belongs to the past. The basement has become a livable part of the home—a place for pleasant work and for play. The modern laundry tub is no less attractive than the kitchen sink of today. Its pure white surface glistens with cleanliness and its lines are gracefully modeled for utmost convenience.

*C 21110-LA* Combination Sink and Laundry Tub, the laundry solution for modern homes built without a basement and for apartments where the laundry is not quickly accessible. The drainboard is instantly removable, revealing a large laundry tub. Molded of porcelain enameled cast iron, it can be kept immaculate with ease. 36x22", 42x22", and 50x22½".



*C 21155* (left). Two compartment laundry tub. Cast in a single unit of vitreous china. Equipped with a RIVAL double faucet that blends the water and directs it to either tub. As easily cleaned as a china plate. Size 44" long by 20" wide.

*C 21147* (right). Solid porcelain (all-clay) two compartment laundry tub with integral overflow. Its hard, glass-like surface is not affected by strong alkalis, dyes or ordinary acids. One-piece construction with inside corners rounded make it easy to clean. Rigid, attractive supporting frame. Sizes 40x22 and 46x24", 14" deep. Available in buff color or white.



## LAVATORY FAUCETS WITH NEWSLEEVE TRIMMING UNITS



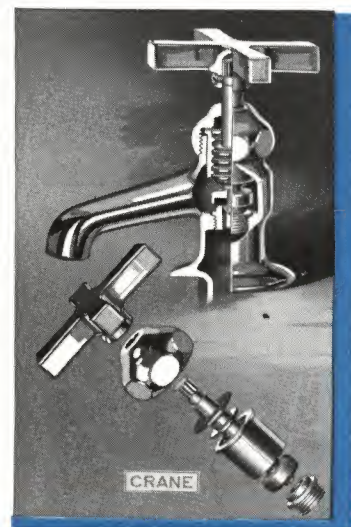
*C 31812-RN* IMPROVED TELSA faucet, an attractive durable and trouble-free faucet with NEWSLEEVE trimming unit and renewable seat.



*C 31918-RN* IMPROVED AGILIS quick-opening faucet equipped with NEWSLEEVE trimming unit and renewable seat.

A new Crane development in faucet satisfaction is the NEWSLEEVE Trimming Unit, a feature of the faucets shown on this page. The entire unit may be removed, without even taking the faucet body off the lavatory, and all parts subject to wear may be instantly replaced. A new span of service is thus assured.

*C 31906-N* (below). This IMPROVED AGILIS, with indexed metal handles, blends water from a single spout. Fitted with NEWSLEEVE trimming units and renewable seats.



*Sectional view of IMPROVED TELSA faucet showing NEWSLEEVE unit*

*C 25270* (right). This attractive china pedestal soap holder with drain lip is placed at the left of the lavatory as a companion to the *C 31906-N* faucet.

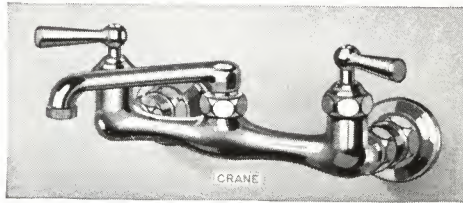




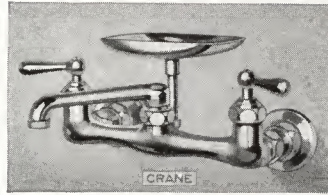
The faucet is the "business part" of the sink. On it depends your satisfaction with the entire fixture. Crane's unrivaled experi-

ence in engineering valves and faucets assures long and trouble-free service from the equipment of every Crane sink.

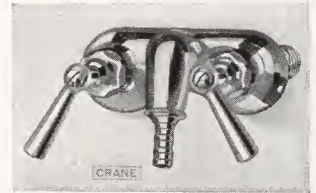
## FAUCETS



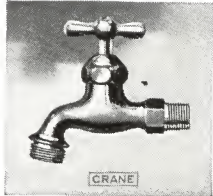
C 32740-N Crane IMPROVED AGILIS compression double faucet with metal handles, NEWSLEEVE trimming units and renewable seats.



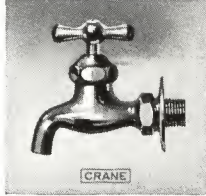
C 32740-SN Crane IMPROVED AGILIS double faucet with metal soap dish, NEWSLEEVE units and renewable seats.



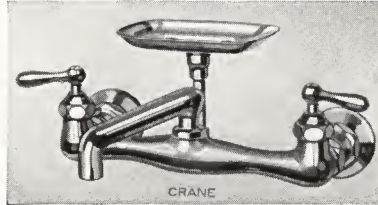
C 33134 Crane AGILIS quick-compression front handle double bath faucet; shampoo tailpiece on spout.



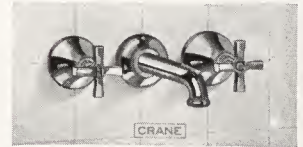
C 31103 Crane TELSA compression faucet, hose end.



C 31160 Crane TELSA compression faucet.



C 32751-AS Crane RIVAL compression double sink faucet with renewable seats, metal handles and soap dish.



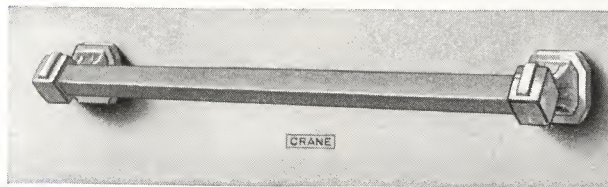
C 33535-R Crane RIVAL 1/2-inch compression overrim supply fixture with renewable seats.

## CRANE NEW ACCESSORIES

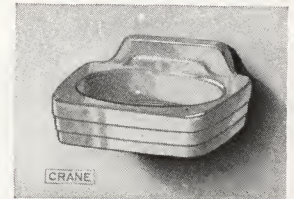
This completely new and exclusive Crane line of vitreous china accessories introduces character into the designing. Smart, modern, not bulky, they are styled to harmonize with Crane fixture designs of today.



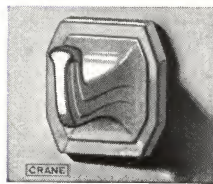
C 26903 White enameled steel medicine cabinet with copper-backed mirror set in stainless steel frame. Adjustable glass shelves. Sizes 16x22 and 21x27".



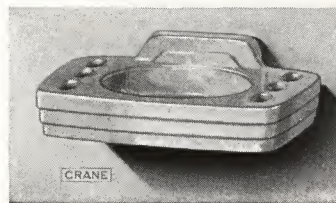
C 24925 Towel Bar—18", 24", 30", and 36" long.



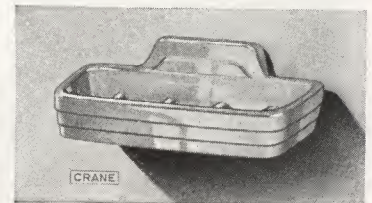
C 24932 Tumbler Holder.



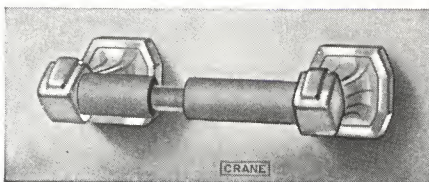
C 24960 Robe Hook.



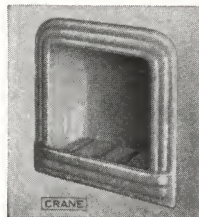
C 24935 Tumbler and Tooth Brush Holder.



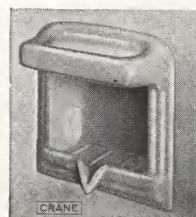
C 24940 Soap Dish.



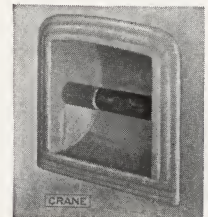
C 24956 Toilet Paper Holder.



C 24970 Built-in Recess Soap Holder.



C 24975 Built-in Recess Grab Bar and Soap Holder with Lip Drain.



C 24984 Built-in Recess Paper Holder.

*Crane exposed accessories are supported to wall with concealed wedge type supporting clips; Crane built-in recess accessories require a wall opening 6x6", and a recess in the wall 3 5/8" deep.*



# CRANE HEATING BOILERS

mean true economy

**T**HERE are several important things to remember when choosing a heating plant. Replacement is far more costly than the original installation. So save by choosing quality materials. Save by getting a large enough boiler and sufficient radiation in the first place. Most important, save by choosing *modern* equipment designed to save fuel.

A 79-year manufacturing reputation, long study, and thorough experience have produced Crane master-heaters that at last rout the waste which steals fuel dollars.

The first waste goes up the chimney. How many dollars are going up the flues of ordinary heating plants in unused heat and unburned gases? *Crane Boilers force the heat through flues back and forth, until every last available bit of heat is transmitted to the water.*

The second waste comes from air bubbles. They form on the inside of water sections, insulating them, keeping heat away. *Crane Boilers speed the water flow, scrubbing these costly bubbles away.*

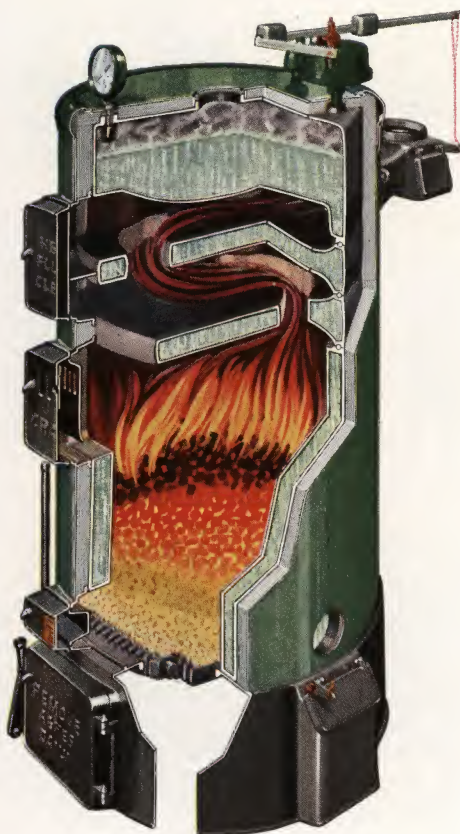
Soot causes the third waste. It, too, insulates and robs you. *By ingenious arrangements of flues and large clean-out doors, the soot in Crane Boilers is easily scraped off into the fire without a bit of dirt in the basement.* A former dirty job is ended and many dollars' worth of lost fuel is recovered for you.

The fourth waste goes into the basement. It is the upstairs you are paying to heat. The Crane two-tone green boiler jacket keeps the heat in the boiler with thick asbestos insulation and ends the heat loss.

These are but four of many advancements. For the sake of economy and convenience, install Crane equipment for coal, coke, oil, or gas. The investment will pay you rich dividends.



*Crane Square Boiler*



*Crane Round Boiler*

## Here are some more reasons why it will pay you to install a CRANE HEATING SYSTEM

- 1** These boilers will do justice to any scheme of basement decoration for den, play-room, or work shop. Their jackets are extra heavy and properly insulated.
- 2** The experience of Crane Co. in almost a century of manufacturing has been applied to the making and selecting of the complete equipment from the valves, regulators, gauges, and try cocks to the combination thermometer and altitude gauge.
- 3** Clunkers cannot force the grates out of position. Patented non-jumping sock-ets keep them in place.
- 4** Sluggish water travel permits the formation of insulating films of bubbles within ordinary boilers. Crane patented fast-water circulation eliminates film and increases heat transfer.
- 5** The ceiling heating surface exposed to the fire and flue gases is greater than

in ordinary boilers. As a result, more water surface is exposed to the heat with a saving in fuel.

- 6** A quick installation, and one free from leaks, is assured because all Crane boilers are completely assembled at the factory and thoroughly tested before shipment.

- 7** Convenience has been added by a grate shaker bar locking device. With a tap of the foot, you can move it easily for shaking or dumping, or locking in position. The steel shaker bar handle is unbreakable.

- 8** There is no need for frequent firing. An extra deep combustion chamber holds ample fuel.

- 9** Marring of jacket is eliminated because jacket is put on after boiler is installed and ready to operate.



# CRANE "SUSTAINED HEAT"



*Deluxe Jacket*

There is no escape for them at the top of the Crane boiler. The only way they can pass out of the smokehood is to cool and drop. They cannot cool except by giving up their heat to the water. Thus, more b.t.u.'s are absorbed by the water in the boiler and a more even comfort temperature is maintained until the oil burner automatically starts.

The individual section water legs are provided with patented water-flow control baffles, and flue passes precisely designed for oil firing. In addition to these special features, the completely jacketed smokehood on the Crane D1 Series boiler is uniquely designed to extract the greatest possible amount of available heat at a point where most boilers fail.

Crane "Sustained Heat" principles provide you with the ultimate in boiler heating comfort, economy, and convenience.

## CRANE D1 SERIES OIL-BURNING BOILER

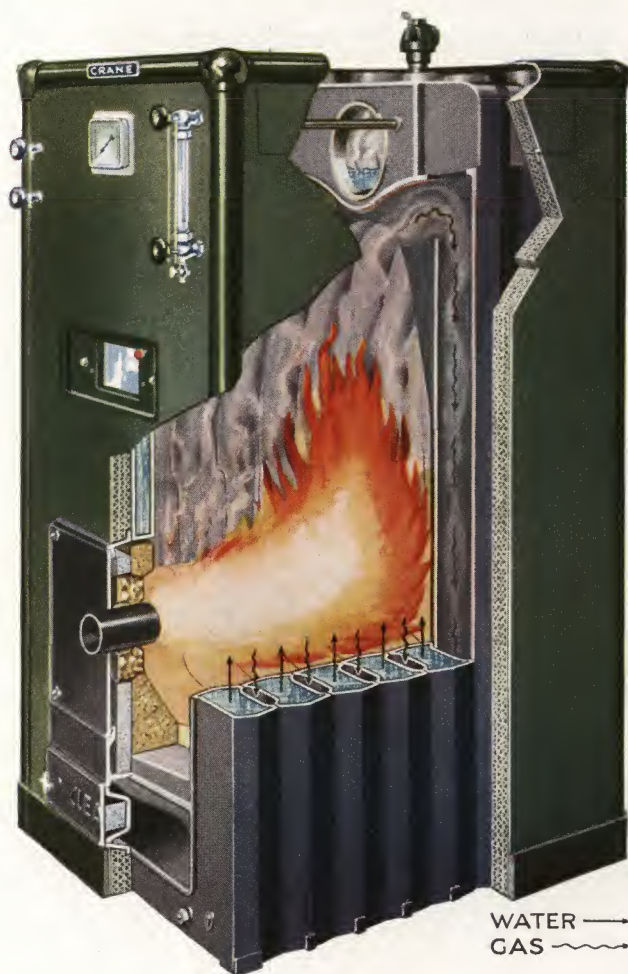
In the distinctive two-tone green jacket, with chromium trimmings, unexcelled for workmanship, performance, and appearance, the Crane D1 Series now meets the need for a *real* oil-burning boiler. When supplied with a Crane-recommended oil burner, the matched unit achieves a new degree of efficiency. *Can be furnished with Deluxe Jacket enclosing burner or Plain Jacket.*

- means peak efficiency with all the conveniences of automatic control

THE early attempts to burn oil for home heating are a great deal like the first efforts to build a motor car. Engineers had to forget all the traditions of carriage-making before the "horseless carriage" became the efficient machine of today. Similarly, true oil-burning efficiency could not be attained until engineers stopped trying to convert a coal-burning boiler and designed one particularly for oil.

In the usual boiler construction the gases of combustion rise *upward*, pass through horizontal flues at the *top* and then through a smokehood at the back. This traditional design, when used for oil burning, lets the heat escape from the boiler quickly every time the oil burner shuts off.

The Crane special oil-burning boiler stops this loss with the introduction of the "Sustained Heat" principle. After the gases rise to the top of the fire box, they are forced *downward* through flue passes between adjacent sections, instead of being permitted to flow upward and escape through the chimney. These flues run into two horizontal, completely water-jacketed passes at the bottom. When the oil burner shuts off, the light heated gases rise.



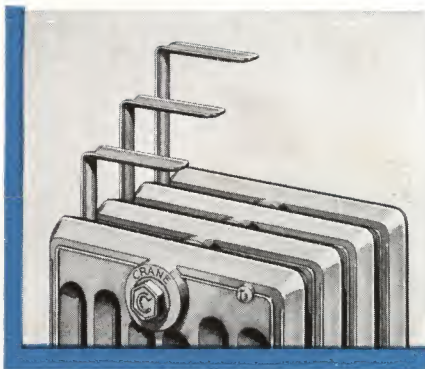
*Plain Jacket*



## HEAT WHERE YOU WANT IT

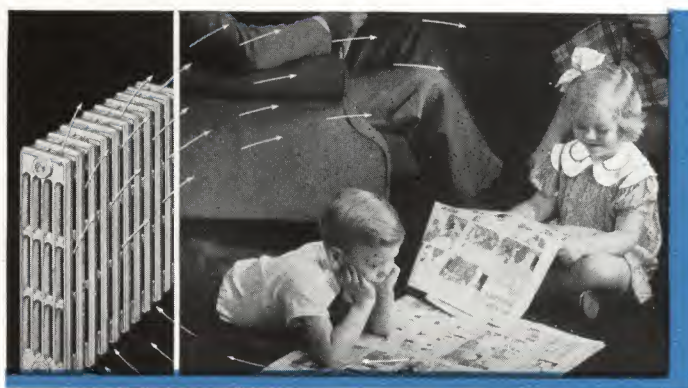
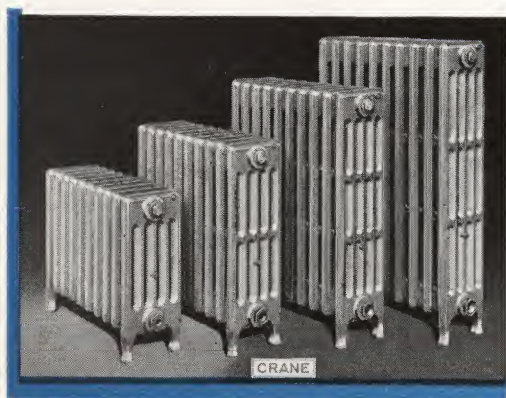
### • the Crane Invisible Shield

Let's analyze an average heating system . . . see if Crane Radiation won't help you get more good from the fuel you burn . . . make rooms more comfortable in every part of your home!



Radiation is heating . . . Crane Radiation is controlled heating . . . putting heat where you need it most! Directed Radiation is the first attempt to control direction of heat currents away from the ceiling . . . where heat is ineffective and wasteful . . . and direct it outward into the room where heat is wanted!

You'll save a handsome cleaning and decorating bill the very first season with Crane Invisible Shields! They cost but 15c each retail.



## SMARTNESS AND EFFICIENCY MEET

### • in Crane directed radiators

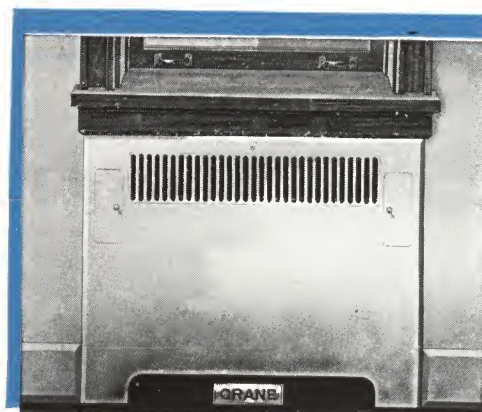
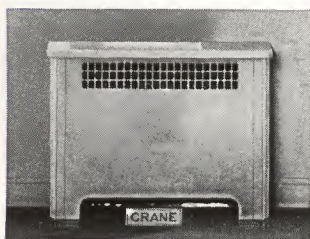
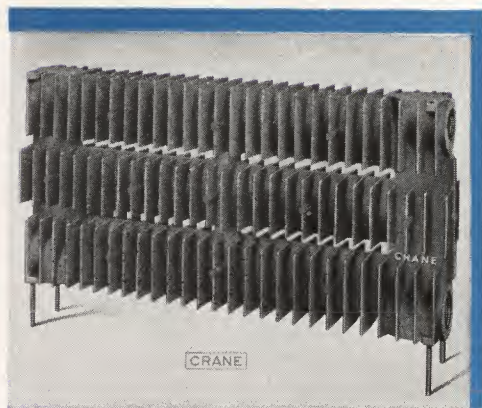
Crane cast-iron radiators are masterpieces of styling and engineering. 1. Their beauty is enhanced by Crane's invisible assembly—the durable, secure screw-nipple construction. 2. This construction also simplifies the addition or reduction of the number of sections in each radiator. 3. Advanced design increases radiation per square inch, effecting improved and lower cost heating. There are styles and sizes for all types of buildings and all wall and floor spaces.

## CRANE CONVECTORS

### • the modern note in heating

The trend of today is toward concealed radiators. Out of the way, behind a grille, they enhance the symmetry of the room and save space. Crane Convectors give maximum heating output. Made of sturdy cast iron, their efficiency is unaffected by expansion and contraction. Large waterways insure rapid circula-

tion. Their integral construction eliminates the danger of leaks from welded or soldered joints. A variety of enclosures is available to harmonize with every architectural and decorative plan.





## THE NEW WAY TO HUMIDIFY

Almost without exception the air in homes and offices during the heating season is too dry. The blame cannot be laid on any one form of heating. When the temperature of air is increased, its capacity to absorb water is increased.

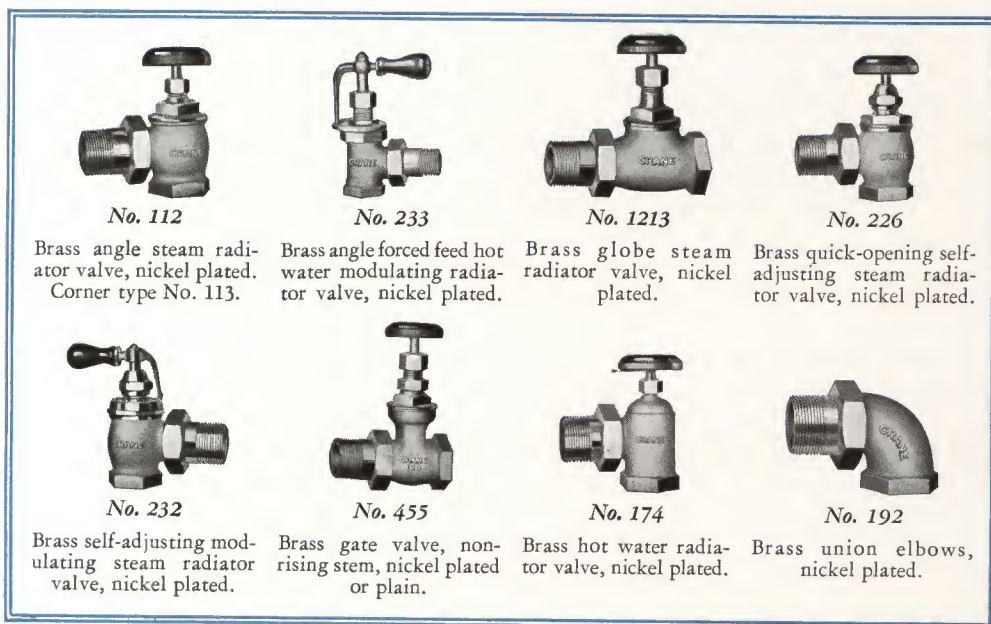
Thirsty air tries to draw its moisture from the noses, throats, sinuses, skins of the dwelling's occupants; from pictures, hangings, clothes; woodwork and furniture. The sure method of supplying correct humidity in heated homes is with a Crane Humidifying Radiator which silently and economically evaporates all the moisture needed to maintain proper humidity in your home.



## INSIST ON CRANE QUALITY

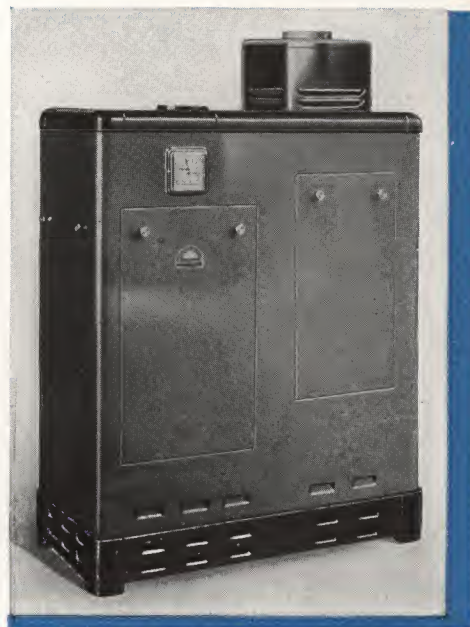
A heating system is never better than its weakest point. Full value from a good boiler and efficient radiation can be destroyed by inefficient valves and fittings. For long, untroubled service and the greatest ultimate economy, insist on the use of Crane materials throughout your new heating system.

• valves, fittings, and piping



## BASMOR GAS FIRED BOILERS

If your decision is to enjoy the cleanliness and convenience of gas heat, it will prove a real economy in the end to install a boiler specially designed for the purpose. The Basmor meets every requirement for house heating and domestic hot water supply with either manufactured or natural gas. The efficiency of this boiler is exceptionally high, assuring you the utmost heat for every dollar you spend for fuel. The operation is completely automatic—you can tend it from your easy chair in the living room.





# RUNNING WATER

- for suburban and country homes

Will your new home be in the country or suburbs, away from city water mains? Then one of your first interests will be running water from pressure.

Wherever your property, you need not do without this most important of the conveniences which every city dweller demands and enjoys.

There is a Crane system with every modern refinement and backed by a 79-year reputation to supply you with running water.

If there is a lake, spring, or cistern at hand you probably will be able to use a Crane Shallow Well System. If it is necessary to drill more than 22 feet, a Crane Deep Well System will provide water under pressure at a remarkably low cost.

In the Crane line there is a system for every domestic and farm need. For installation where electricity is not available, there are Crane pumps powered by gasoline engines.

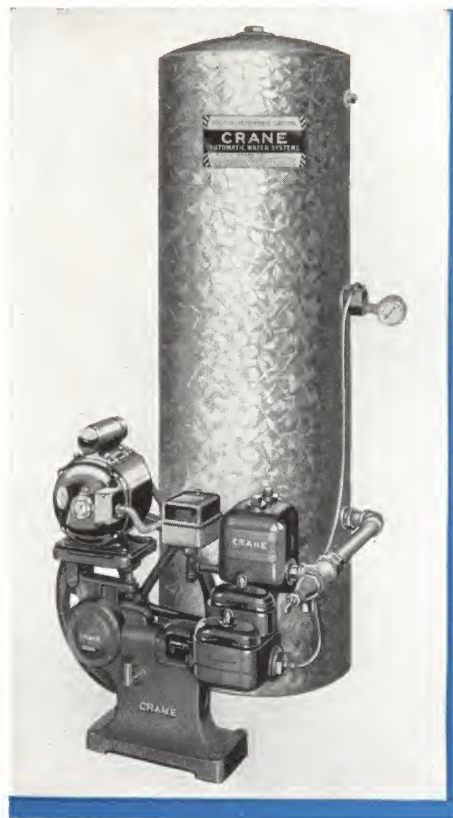
You will find that an investment in Crane supplied running water is one of the most advantageous that can be made.

It will assure you the luxury of having all the running water you need on tap for washing, bathing, shaving.

It will bring you the calm assurance that, should a fire break out, you can fight it with its greatest enemy—water.

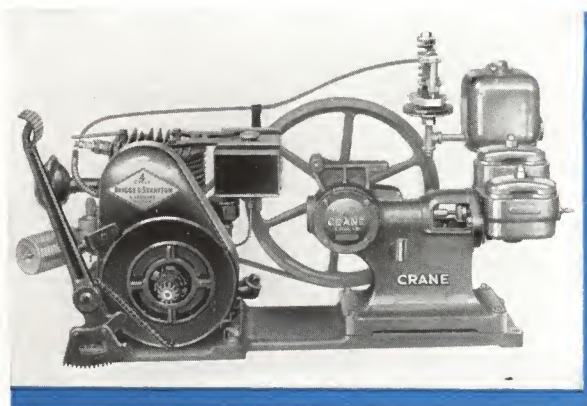
If you will have live stock, plenty of fresh running water will pay a profit. Your stock will prosper, weigh more, sell for more; and you will save time and labor.

Finally, the Crane name and Crane service are your assurance of constant satisfaction.



*S-25 with Vertical Tank—250 gallons per hour*

*Crane Shallow Well System complete with storage tank, electric motor, automatic pressure switch, relief valve, air volume control and necessary fittings to connect tank to pump. A highly efficient provider of water for home and farm.*



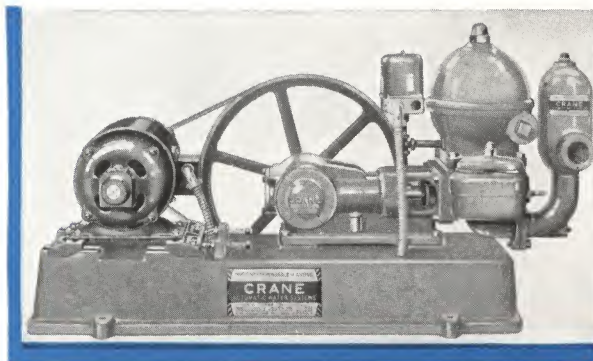
*Crane Pump with Gasoline Engine*

All models of Crane Water Systems may be equipped with gasoline engines for use when electricity is not available. They are 4-cycle, single cylinder, forced air-cooled, with high tension, moisture-proof magneto for easy starting. These engines are strong, dependable, and exceptionally economical to operate. A circuit breaker switch should be used to stop engines automatically.



# CRANE SYSTEMS

- pump more water per unit of power



*Models S-80 and S-100—800-1000 gallons per hour*

## LARGE VOLUME SHALLOW WELL SYSTEMS

These models give large pumping capacities with smooth and quiet operation. They have been designed for large domestic, farm, and light irrigation use, etc.



*Models S-40 and S-50—400-500 gallons per hour*

## SHALLOW WELL DUPLEX PUMP

This duplex type of pump, which is equipped with four intake and four discharge valves, delivers a greater quantity of water at a more even flow than the single cylinder model.



*Models D-6 and D-9—160-1000 gallons per hour*

*The Crane Deep Well Pump with electric motor.* Pleasing in appearance, simple in operation, strong yet light in construction, with accessible parts and abundant lubrication.

*The New Crane Deep Well Water Systems* enable you to pump water for kitchen, bath, heating system, truck garden, stock, poultry, from 500-foot depths as easily as you might draw it from your cistern. Crane Co. has set a new standard in combining high water delivery per unit of power with simple, rigid and durable construction.





# CRANE GAS WATER HEATERS

## • Keep Hot Water Always Ready

Certainly, in your new home, you will want hot water. Not a scanty supply. Not the "light-it-and-wait" kind. But piping hot water at the turn of a faucet, all you want, whenever you want it, 24 hours a day, 365 days a year.

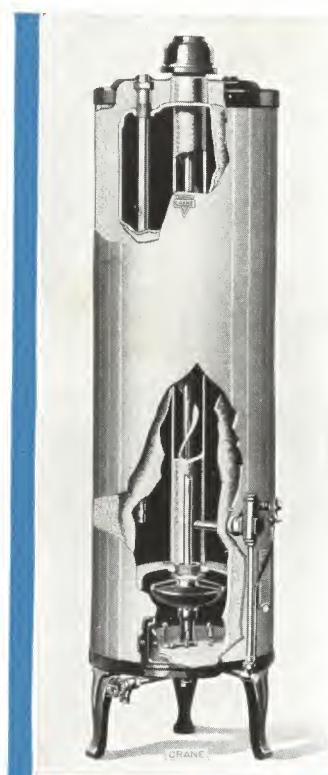
Steaming hot water helps in dish washing, aids in the laundry, encourages the habit of cleanliness with the children. An abundant supply saves the annoyance of finding the water running cold just when it is needed most. And when sickness strikes, having hot water waiting even in the dead of night is a blessing. Fortunately, the luxury of such hot water service is economical. Crane Gas Water Heaters are more careful of gas bills than you could be. The gas shuts off the instant the water reaches the exact degree determined. It turns on the split-second it is needed. The operation is thrifty as only a fully automatic, fully insulated water heater could be.

There are styles, prices, and sizes of Crane Water Heaters for every home. Get complete information about them before you decide.



*Crane Superior Water Heater*

Moderately priced, but well constructed and fully automatic.



*Crane Keystone Water Heater*

Extra heavy construction with exclusive Crane spreader and burner for rapid and economical heating.

## SOFT WATER

### • a luxury that pays for itself

Do you remember the days way back when there were rain water cisterns? Unsanitary, yes. But what rich, foaming soap suds! How good your skin felt! How easy the laundering was!

Soft water smooths the texture of your skin. It makes hair radiant. Glassware sparkles. Dishes are cloudless. Linens come out snowy white. Food tastes better. Boilers, freed from scale, are more efficient. Piping does not clog up,



nor do faucets need constant repairing.

Soft water saves soap, clothes, fuel, and plumbing repairs. In fact, a Warlo Water Softener saves so much in an average home that it will soon pay for itself.

Warlo Water Softeners will deliver softened water to every faucet in your new home. They are built for ease of control, efficiency of operation, and long life. They need no attention except a periodical flushing with salt water (regeneration). This is a simple operation, which anyone can do. There are no gadgets to confuse. Nothing to get out of order.

Surely, as it will pay for itself, you will insist on a Warlo softener when you build.



# PRICE GUIDE

Prices do not include piping, labor, and other installation costs. For complete price, consult your plumbing or heating contractor.

Fixtures in color can be furnished in a choice of the following Crane colors:

No. 400 Orchid Pink  
No. 405 India Ivory  
No. 410 Citrus Yellow

No. 415-A Pale Jade  
No. 418 Fern Green  
No. 420-A Nile Green

No. 425-A Lucerne Blue  
No. 430-A Venetian Blue  
No. 450 Black

No. 485 Persian Red  
No. 490 Lavender  
No. 495 Sun Tan

## BATHROOMS

	Size	White	Color
<b>THE "MARSHALL" GROUP</b> (Page No. 2)			
C 136 <i>Corwith</i> lavatory.....	24x21"	\$78.90	\$88.30
	27x22"	83.65	95.45
	30x24"	112.00	138.00
	33x24"	125.15	157.70
	36x24"	138.25	177.30
	42x24"	139.75	217.15
If less towel bars, Deduct.....		20.00	20.00
C 10482 <i>Monada</i> closet.....		53.30	75.00
C 3205-LC51 <i>Marshall</i> bath, shower, curtain and rod.....	5½'	200.20	
For C 26296 vertical hand rail, Add.....		6.70	6.70
For C 26285 non-slip grab bar, Add.....		3.75	3.75
For acid-resisting tub, Add.....		16.70	33.30
C 24940 China soap dish.....		1.15	1.50
C 26212-A Metal towel bar.....	5/8x30"	3.00	
C 26102-A Crystal glass shelf.....	24"	4.45	
C 24984 Toilet paper holder.....		2.30	4.55
Prices cover metal trimmings in chromium plated finish.			
<b>THE "CORWITH" GROUP</b> (Page No. 3)			
C 181 <i>Compeer</i> lavatory.....	22x18"	\$45.30	\$53.25
If less towel bars, Deduct.....		4.45	4.45
C 10536 <i>Santonia</i> closet.....		44.70	61.60
	4½'	82.80	
C 3284-LC93 <i>Corwith</i> bath, <i>Rival</i> shower, curtain and rod.....	5'	80.85	
	5½'	86.85	
	6'	120.85	
*For C 26296 vertical hand rail, Add.....		6.70	
For C 26285 non-slip grab bar, Add.....		3.75	
*Drilling of Tub—\$4.00.			
For acid-resisting tub, Add.....	4½'	6.15	12.20
	5'	5.90	11.70
	5½'	6.65	13.20
	6'	10.90	21.70
C 26212-A Metal towel bar.....	5/8x30"	3.00	
C 26894 Medicine cabinet with etched mirror.....	18x26"	13.15	
Prices cover metal trimmings in chromium plated finish.			
<b>A MATCHED GROUP</b> (Page No. 4)			
C 2006 <i>Corwith</i> lavatory.....	24x20"	\$33.50	\$38.30
C 10991 <i>Maurclonia</i> closet.....		31.80	45.05
	4½'	67.75	
C 3308-LC93 <i>Corwith</i> bath, <i>Rival</i> shower, curtain and rod.....	5'	70.80	
	5½'	76.05	
	6'	108.25	
C 26212-A Metal towel bar.....	5/8x18"	1.75	
For C 26296 vertical hand rail, Add.....		6.70	
For C 26285 non-slip grab bar, Add.....		3.75	
For acid-resisting tub, Add.....	4½'	4.90	9.75
	5'	5.25	10.55
	5½'	5.95	11.90
	6'	9.95	20.00
C 26894 Venetian medicine cabinet.....	16x24"	10.95	
Prices cover metal trimmings in chromium plated finish.			

## BATHROOMS

	Size	White	Color
<b>FOR ECONOMY AND SERVICE</b> (Page No. 5)			
C 2168 <i>Colorado</i> lavatory.....	21x17"	\$22.25	
	24x18"	24.25	
C 11125-J <i>Neuton</i> closet.....		22.70	
	4'	27.25	
	4½'	27.25	
C 3442-T66 <i>Doris</i> bath.....	5'	30.30	
	5½'	35.35	
	6'	41.90	
C 24925 Towel bars.....	7/8x24"	3.60	
C 26907 Medicine cabinet.....	18x22"	22.50	
C 26601 Brass toilet paper holder.....		1.25	
Prices cover metal trimmings in chromium plated finish.			
<b>POWDER ROOM</b> (Page No. 7)			
C 641 Design 40 <i>Cromwell</i> lavatory.....	26x14"	\$49.70	\$55.15
C 10482 <i>Monada</i> Closet.....		53.30	75.00
Prices cover metal trimmings in chromium plated finish.			
<b>LAVATORIES OF TODAY</b> (Page No. 8)			
C 171 <i>Corwith</i> lavatory.....	23½x17½"	\$44.25	\$56.75
	20x18"	35.60	40.50
C 154 <i>Norwich</i> lavatory.....	24x21"	41.75	49.75
	24x21"	45.90	58.95
C 255 <i>Norwich</i> lavatory.....	27x22"	49.95	65.00
	30x24"	74.15	101.30
	24x21"	48.30	62.55
C 221 <i>Corwith</i> lavatory.....	27x22"	52.75	69.25
	30x24"	79.40	109.20
C 173 <i>Corwith-Compeer</i> .....	22x18"	46.95	55.70
	27x22"	56.15	71.25
Prices cover metal trimmings in chromium plated finish.			
<b>LAVATORIES</b> (Page No. 9)			
C 2001 <i>Corwith Tucaway</i> cabinet lavatory, complete with type "A" cabinet.....	24x20"	\$37.20	\$38.50
C 2171 <i>Cabelo</i> .....	21x17"	28.50	29.50
C 1991 <i>Coronada-Lavinet</i> .....	24x20"	35.20	36.40
<b>Lavatory trimming, WM-11.....</b>			
V-12.....			\$ 9.05
L-9.....			7.70
			14.70
	Size	White	Color

All prices are subject to change without notice.



## LAVATORIES

LAVATORIES—Continued (Page No. 9)	Size	White	Color
C 755 <i>Norwich</i> lavatory.....	18x15"	\$22.75	\$28.85
	20x18"	23.15	29.40
	24x21"	29.45	38.85
C 1223 <i>Dentrix</i> lavatory.....	12x12"	21.55	27.05
C 2254 <i>Carolina</i> lavatory.....	19x17"	14.60	.....
Prices cover metal trimmings in chromium plated finish.			

BATHS OF BEAUTY (Page No. 10)	Size	White		Color
		Regular	Acid-Res.	
C 3284-LG32 <i>Corwith</i> bath.....	4½'	\$66.05	\$72.20	\$78.35
	5'	64.10	70.00	75.90
	5½'	70.10	76.75	83.40
	6'	104.10	115.10	126.10
C 3350-LG30 <i>Carlton</i> bath.....	5'	53.70	.....	.....
	5½'	58.40	.....	.....
C 3370-LG32 <i>Verna</i> bath.....	4½'	52.80	.....	.....
	5'	54.45	.....	.....
	5½'	59.10	.....	.....
Prices cover metal trimmings in chromium plated finish.				
		Size	Chromium Plated	
C 3351S-A Overrim supply fixture.....		½"	\$11.40	
C 33581-E <i>Accesso</i> waste.....		1½"	5.95	
C 4344-B <i>Addenda Shower</i> .....			10.30	

A SHOWER IS A HEALTH TONIC  
(Page No. 11)

	Chromium Plated
C 4261-B <i>Rival</i> shower.....	\$8.25
C 4871-B <i>Economy</i> shower head.....	1.75
C 4875-B <i>Refreshor</i> shower head with ball joint.....	2.05
For head with volume regulator (C 4876-B), Add.....	1.80

CLOSETS  
(Page No. 12)

	White	Color
C 10384 <i>Siwelclo</i> .....	\$60.30	\$80.25
C 10536 <i>Santonia</i> .....	44.70	61.60
C 10945-A <i>Lexel</i> .....	44.20	65.75
C 11125-JA <i>Neuton</i> .....	22.70	32.00
Prices cover metal trimmings in chromium plated finish.		

KITCHEN SINKS  
(Page No. 13)

	Size	White	Color
Sunnyday Sinks complete with White or Ivory Cabinet:			
C 19150.....	60x25"	\$106.40	\$111.65
C 19151.....	60x25"	108.65	114.15
C 19153.....	60x25"	110.90	116.65
For colored cabinet, Add.....		4.40	4.40

## KITCHEN SINKS

## KITCHEN SINKS—Continued

For Refuse Receptacle (attached to door), Add.....\$ 6.25  
For Towel Drier Rack (no heating element), Add.....19.05

KITCHEN SINKS  
(Page No. 14)

	Size	White Acid-Res.	Color Acid-Res.
C 19162 <i>Sunnyside</i> sink complete with <i>Rival</i> faucet and <i>Rival</i> cabinet.....	60x25"	\$ 82.95	\$ 88.20
C 19170-D <i>Corwith</i> double drainboard sink with C 19936 drainboard cabinets (white or ivory).....	60x24" 74x24"	111.70 136.30	117.70 145.05
C 19170-D <i>Corwith</i> double drainboard sink complete with C 19934 cabinet.....	60x24" 74x24"	117.35 148.80	123.35 157.75
C 19179-LYX <i>Corland</i> single drainboard sink complete with C 19938 cabinet.....	42x22" 52x24"	71.40 86.65	74.80 91.05
Prices cover metal trimmings in chromium plated finish and white or ivory cabinet.			
		Chromium Plated	
C 32740-SN <i>Improved Agilis</i> faucet with soap dish.....		\$9.75	

KITCHEN SINKS  
(Page No. 15)

KITCHEN SINKS (Page No. 15)		Size	White	
C 19133-Y <i>Corwith</i> single drainboard two-compartment Porcelain sink (F.O.B. Trenton).....	48x24"	\$88.25		
For C 19980 36" " <i>Add-a-unit</i> " cabinet, add.....		35.65		
	Size	White	Color	
		Regular	Acid-Res.	
C 19184-Y Apron sink, double drainboard with white or ivory cabinet.	60x22"	\$81.30	\$34.10	\$90.65
	42x20"	31.85	33.20	36.45
C 19194-LY Apron sink, single drainboard.....	52x20"	43.95	46.30	51.60
	52x22"	50.10	52.85	59.30
C 19230-LZ Roll rim sink, single drainboard.....	42x20"	43.25	49.40	52.15
	52x20"	57.25	58.85	62.75
Prices cover metal trimmings in chromium plated finish.				
		Chromium Plated		
		-		
C 32751-S <i>Rival</i> faucet with soap dish.....		\$3.75		

HELPS FOR WASH DAY  
(Page No. 16)

	Size	White Regular	White Acid-Res.
C 21110-LA Combination sink and laundry tub.....	36x22" 42x22" 50x22"	\$52.25 54.50 62.05	\$56.00 58.55 67.05

All prices are subject to change without notice.



## HELPS FOR WASH DAY

HELPS FOR WASH DAY—Continued (Page No. 16)		Size	White
C 21155 Vitreous China two compartment laundry tub...		44x20"	\$90.60
C 21147 Porcelain two compartment laundry tub.....		40x22"	28.75
Prices cover metal trimmings in chromium plated finish.			

LAVATORY FAUCETS WITH "NEWSLEEVE" TRIMMING UNITS		Nickel Plated	Chromi- um Plated
C 31812-RN <i>Improved Telsa</i> faucet.....	Per Pair	\$3.00	\$3.10
C 31918-RN <i>Improved Agilis</i> faucet.....	Per Pair	3.00	3.10
C 31906-N <i>Improved Agilis</i> double faucet.....	Each	6.70	7.00

C 25270 Vitreous china pedestal soap dish.....	Each	\$1.00	.....
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SINK AND BATH FAUCETS, ACCESSORIES, ETC. (Page No. 17)		Nickel Plated	Chromi- um Plated
C 32740-N <i>Improved Agilis</i> sink faucet.....		\$9.25	
C 32740-SN <i>Improved Agilis</i> sink faucet with soap dish....		9.75	
C 32751-AS <i>Rival</i> sink faucet with soap dish.....		3.75	
C 31103 <i>Telsa</i> sink faucet, 1/2" size.....	Per Pair	\$1.60	1.80
C 31160 <i>Telsa</i> sink faucet, 1/2" size.....	Per Pair	1.70	1.90
C 33535-R <i>Rival</i> overrim bath supply fixture, 1/2" size....		7.00	7.40
C 33134 <i>Agilis</i> bath faucet.....		1.75	1.80

	Size	White	Color
C 24940 Soap dish.....		\$1.15	\$1.50
C 24932 Tumbler holder.....		.95	1.15
C 24935 Tumbler and tooth brush holder.....		1.30	1.75
C 24925 Towel bars, 7/8" sheet covered bar...	18"	2.50	3.25
	24"	2.90	3.65
	30"	3.25	3.90
	36"	3.65	4.05
C 24960 Robe hook.....		.75	.95
C 24956 Toilet paper holder.....		1.75	2.30
C 24970 Recessed soap dish.....		2.00	4.50
C 24975 Recessed soap dish with grab bar.....		3.30	6.25
C 24984 Recessed paper holder.....		2.30	4.55

## BATH ACCESSORIES, ETC.

BATH ACCESSORIES, ETC.—Continued (Page No. 17)		Size	White
C 26903 Medicine cabinet with copper-backed mirror and glass shelves.....		16x22" 21x27"	\$12.75 20.25

(Pages 18, 19, 20 and 21)  
BOILERS, RADIATION and RADIATOR VALVES—Prices on application.

CRANE PUMPS AND WATER SYSTEMS (Pages No. 22 and 23)		
S-25-A Shallow well water system with 42 gal. tank.....		\$ 67.00
S-25-G Shallow well pump with 1/2 H.P. gasoline engine.....		92.35
S-40 Shallow well pump with electric motor.....		79.70
S-50 Shallow well pump with electric motor.....		85.30
S-80 Shallow well pump with electric motor.....		134.05
S-100 Shallow well pump with electric motor.....		146.25
D-6 Deep well pumping head with 1/2 H.P. motor.....		88.15
D-6 Deep well pumping head with 3/4 H.P. motor.....		98.45
D-6 Deep well pumping head with 1 H.P. motor.....		116.25
D-6 Deep well water system with 42 gal. tank.....		113.45
D-6-G Deep well pumping head with 1 H.P. gasoline engine....		121.90

AUTOMATIC WATER HEATERS (Page No. 24)		
No. 20 <i>Keystone</i> heater with safety pilot control.....		57.55
No. 35 <i>Keystone</i> heater with safety pilot control.....		77.55
No. 55 <i>Keystone</i> heater with safety pilot control.....		114.30
No. 16 <i>Superior</i> heater with safety pilot control.....		49.40
No. 20 <i>Superior</i> heater with safety pilot control.....		53.50
No. 28 <i>Superior</i> heater with safety pilot control.....		59.60
No. 35 <i>Superior</i> heater with safety pilot control.....		72.70

WARLO WATER SOFTENERS		
ST-12 <i>Warlo</i> water softener (12,000 gr. cap.) less brine tank....		79.50
ST-21 <i>Warlo</i> water softener (21,000 gr. cap.) less brine tank....		119.50
BT-12 <i>Warlo</i> water softener (12,000 gr. cap.) with brine tank....		94.50
BT-21 <i>Warlo</i> water softener (21,000 gr. cap.) with brine tank....		137.50
BT-33 <i>Warlo</i> water softener (33,000 gr. cap.) with brine tank....		182.50
BT-48 <i>Warlo</i> water softener (48,000 gr. cap.) with brine tank....		250.00
BT-72 <i>Warlo</i> water softener (72,000 gr. cap.) with brine tank....		340.00







# DEPEND ON CRANE

When you choose plumbing and heating equipment, it is not like buying furniture. Replacement is difficult and costly.

Much of the piping and fittings is hidden within the walls and buried under floors. Failure of any part usually means a bill for repairs far greater than the slight difference between quality and cheap equipment.

In trying to economize, some home owners accept a boiler that is too small and radiation that is inadequate. A cold home and forced firing that wastes fuel results. Others save a few pennies on faucets and wastes, and spend dollars for replacements later, to say nothing of the annoyance in the meantime.

To avoid these and many other pitfalls, employ reliable Plumbing and Heating contractors who recommend Crane materials. They will gladly advise you on any and all phases of heating and plumbing.

Back of them stands the 80-year Crane reputation, the quality of Crane materials, the satisfaction of Crane service, and the reliability of Crane Counsel. The combination of reliable products and reliable workmen will assure you the utmost in convenience, comfort, sanitation, and true economy for your home, whether it is a modest bungalow or a large town house.

Crane Co. maintains 160 Sales and Exhibit Rooms, where the latest Crane designs may be seen. One is near you. See the inside of front cover for locations.

# CRANE

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WATER SYSTEMS, WATER HEATERS, WATER SOFTENERS





THE BLUE  
BOOK OF

# *Fenestra* *Residence Windows*





Stark tree trunks,—sharp autumn winds,—but through the somber, early dusk gleams warm light from many-paned Fenestra Casements. There's real welcome in the fascinating sparkle of these unusual windows,—cozy comfort in the snug fit of their steel frames,—added security from cold and storms. And in the summer, Fenestra Casements with swing leaves opened wide, catch even the faintest breezes.

Winter comfort. Summer ease. Year round beauty.



# Fenestra Residence Windows



Through the window of the present  
 All my life must come to me!  
 Freedom, happiness and love, and  
 Nature's beauty I shall see  
 Only as they near my casement;  
 Then my heart shall bid them stay,  
 For God's blessings always enter  
 Through the window called Today.

—O. LAWRENCE HAWTHORNE



**Y**ou should give the windows of your new home more than passing thought, for they can be made to add much to your future pleasure and comfort.

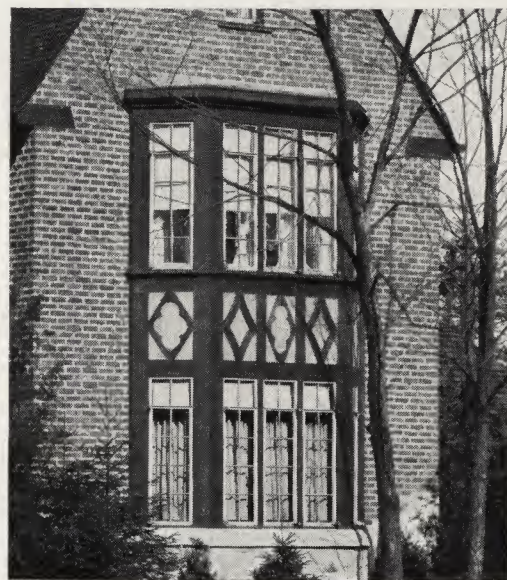
Viewed from the outside, windows can affect the design and character of the entire building. They are the features which give expression to the home. Their shape, size and location can

make a house look prim or stately, hospitable or cozy. Windows make the first impression on the passerby in the street or the visitor beside the hearth.

Viewed from the inside, each window frames a picture, charming in a way that wall-hung pictures never fully equal, for the varying scenes are painted by Nature in the bright colors of the out-of-doors.



*Each window frame a living picture*



*Tall and stately windows*



# In Large Homes and Small Ones



C. H. Dent, Englewood, N. J., Owner  
Polhemus & Coffin, Architects



Henry Barkhausen, W. Palm Beach, Fla., Owner  
Treanor & Fatio, Architects



H. T. Riter, Wynnewood, Pa., Owner  
Wallace & Warner, Architects



Home in Scarsdale, New York  
W. Stanwood Phillips, Architect



Stone

*Left Above:* Daniel Lipsky, Great Neck, N. Y., Owner. A. W. Coote, Architect



Stucco

*Left Below:* House in Birmingham, Mich. Designed by Henry J. Rohl, Jr.



Brick

*Right Above:* Mrs. F. G. Mead, Berkeley, Calif., Owner. House Beautiful Prize Home

*Right Below:* Allison D. Housley, Wellesley, Mass., Designer



Shingle



# How Windows make Houses "Livable"

If you have an architect—and you should have one by all means—he will know many of the finer points about windows from long experience and he will welcome suggestions from you that show him your window preferences and the results you hope to obtain. If you do not employ an architect, that is all the more reason why you should study the design and arrangement of your windows very carefully.

Tall, narrow windows tend to make a house look high, while wide, low windows tend to make it look broad. Extremes in either direction usually should be avoided.

The tops of your windows usually should be several inches below your ceiling. This gives a much better effect than to carry the windows up tight against the ceiling. Also, try to keep the tops of your windows on a line. If the window heights must vary, try to let the variation come in the height of the sills above the floor. This is not always possible but it is a good thing to have in mind.

Group your windows. Place two or three or even four or five together, side by side. Single windows sometimes are hard to space nicely and if



you use enough of them to give proper light and air they reduce the amount of free wall space and often make it hard to place the larger pieces of furniture, such as davenports, pianos and book cases, just where you want them.

The height of window sills above the floor is something to consider. There is no set rule, but

24" to 30" is a good height if you plan to sit near the windows. This allows space under the window for a radiator or a window seat or both.

Always try to place your heating units—radiators, warm air registers, etc.—under or near the windows wherever possible, to warm the air that comes in contact with the glass.

Don't forget that the lower part of any window admits light to a small portion of the room near the window but the upper portion of the window lights the back of the room and therefore is of equal or even more importance. This is worth consideration when planning shades and draperies.

Remember that cross ventilation in a room always is desirable. Therefore try to place your windows so there will be a sweep of air across every room. If your room is in a corner of the building, even a small window in each of the two outside walls is better than one large window in one wall and no ventilation whatever in the other.

Residence windows usually are of the Double Hung Type or the Casement Type. Double Hung Windows slide vertically and usually are counter-balanced by weights concealed in the jambs. Casement Windows are hinged at the jambs to swing in or out. Out-swinging Casements are much preferable as In-swinging Casements are hard to make tight against driving storms and the in-swinging portion tends to interfere with draperies. In-swinging Casements have screens on the outside and Out-swinging Casements have screens on the inside.

Steel Casements made by the Detroit Steel Products Company are called "Fenestra" which is the Latin word for "window." Germans call it "Fenster" and the French call it "Fenêtre."

Naturally, we think Fenestra Casements have many advantages for the home owner and builder. These advantages we have tried to explain on the succeeding pages. On page 23 you will find evidence that some other people, whose opinions are well worth while, agree with us.



# Adapted to Every Room in the House



Living Room



Dining Room



Breakfast Room

Some people say, "I want Fenestra Casements in my living room, but I'm not just sure how they will work out in the other rooms in my house."

The pictures on this page show Fenestra Casements used in every type of room. Other arrangements and adaptations are possible of course, but the ones shown are fairly typical.

There are curved headed windows for the stair hall and casements of varying height and width for the sun room; "studio" types for the den; low, broad windows to use over the kitchen sink or above the fireplace mantel; tall, narrow types for closets, bathrooms and such places.



Stair Hall

One particular type is handy for use in dormers, breakfast nooks and baths. This type has two swing leaves, each leaf just one pane wide.

The pictures on page 8 show how various types of Fenestra Casements look from the outside when installed in Bays, Oriels, Dormers and in various groupings.

A "Dormer Window," of course, is a window in a small gable which rises from a sloping roof. A "Bay Window" is one that is set in a structure, angular in form, projecting from a wall and extending to the ground as distinguished from an "Oriel" which is a similar structure but carried on brackets.



Sun Room



Bedroom



Kitchen



# Delightful in Colonial Designs



Owner, A. M. Lerner, Orange, N. J. Philip N. Stern, Architect



Owner, George V. Christie, Purchase, N. Y.  
L. S. Beardsley, Architect



Owner and Designer, B. E. Rockoff, Detroit, Michigan



Residence in Washington, D. C., A. L. Aubinoe, Architect



Residence in Washington, D. C., Dillon and Able, Designers



Owner, J. A. Tennant, Houston, Texas. John F. Staub, Architect



Owner, R. H. Cooper, Yonkers, N. Y.  
Westchester Hills Homes Corp., Designers



Residence at Maplewood, N. J.  
Lombardy Construction Co., Designers



# Easy to Shade or Drape Pleasingly

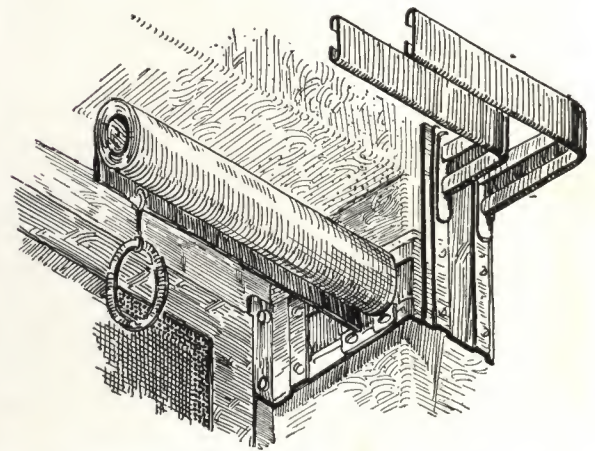


The scheme of window draping for any room should depend much on the character of the room itself. Usually the problem is somewhat simplified by the use of Fenestra Casements because the small panes of glass and the ornamental hardware are themselves decorative and harmonize readily with any treatment of wall space or window opening.



Roller shades and drapery brackets usually are attached to ordinary windows by screwing them to the surrounding trim or plaster. But Fenestra Casements can be drilled near the head at both jambs to accommodate any standard bracket so that the draperies and shades may be hung from the window frame itself.

The sketch below illustrates a combination



Shade and drapery bracket suggested for Fenecraft and Fenwrought Casements



# *With a Variety of Charming Results*



bracket which may be purchased locally to support shades, glass curtains and overdrapes.

The pictures on these pages and on page 4 suggest various modes of formal and informal draping. The variety possible is almost endless and it is astonishing what a change in window appearance can be created by changing the draperies,—printed or hand blocked linen in one room,—formal lambrequins in another,—bright valances or figured chintzes in a third.

Note the quaintness of the early American bedroom in the lower right hand corner with its wide window made to appear even wider by permitting the drapery to overhang the wall on either side. A straight valance, patterned overdrapes and simple net curtains tied back, increase the room's apparent severity.





# These Casement Groupings are Effective



Oriel



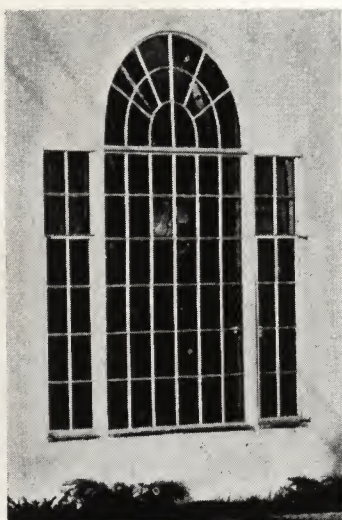
Colonial Dormers



Bay



High and Narrow



Side Lights



Uneven Sill Heights

*Below: Round the Corner*

*Below: Short and Wide*





# Some Fenestra Casement Advantages

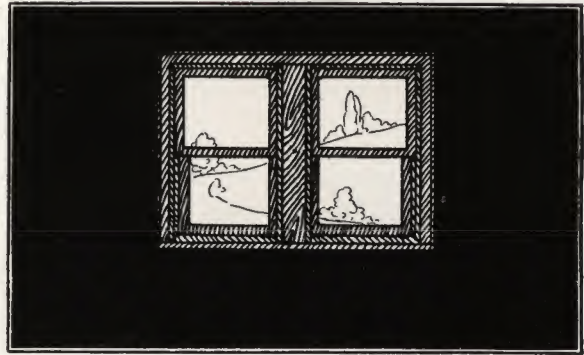
## 1—Strength

Fenestra Casements are strong. They are designed from solid rolled, vertex profile, steel sections. They do not swell, shrink, split or splinter. They are tough, sturdy and stand up under hard usage.

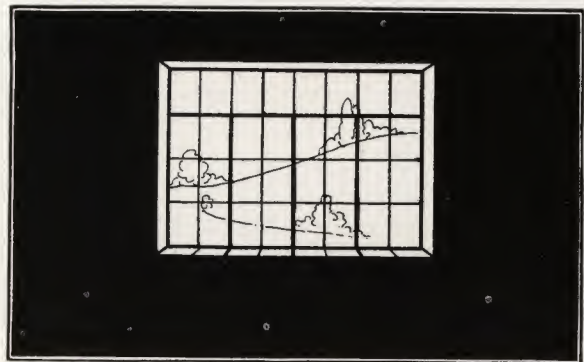
## 2—Admit More Light

They admit more light. Compare a Fenestra Casement—sash and frame—with the ordinary type of Double Hung Window where the overall dimensions are the same and invariably you will find that the Fenestra Casement has a larger glass area. This is because the stiles and rails of the ordinary window must be fairly wide to have the required strength while Fenestra sections have the inherent strength of solid rolled steel and can be made comparatively narrow.

In addition to this, the usual type of Double Hung Window requires weights at the jambs to counterbalance the weight of the sash and these weights must be enclosed in boxes which are always provided for in making up Double Hung frames, so that the actual area of glass per frame is much less than in Fenestra Casements which employ no weights. (See page 18.)



Light area of an ordinary Double Hung Window

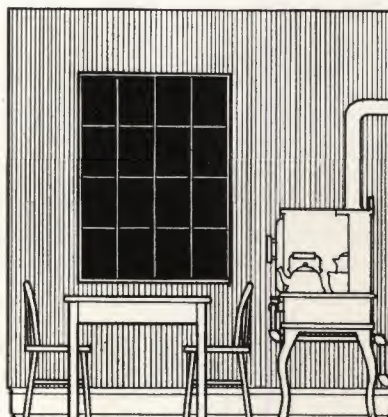
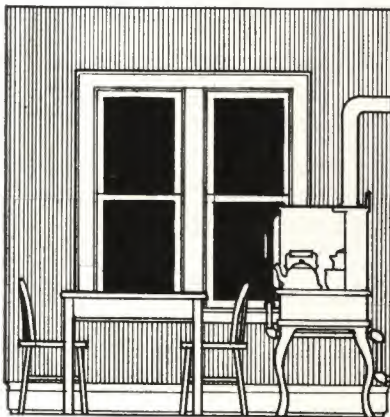


Light area of a Fenestra Casement

## 3—Conserve Wall Space

In modern construction, wall space is at a premium. In bedrooms, kitchenettes, and such rooms, there are areas where as much light as possible is needed but where ordinary windows

in sufficient number to give good light will occupy so much wall space that little room is left for furniture. In all such cases, the narrow frames of Fenestra Casements are a big advantage.



Left—Ordinary Double Hung Window. Right—Fenestra Casement. Both have the same glass area and are located the same distance from the ceiling and from the left hand wall. Which leaves more free wall space for furniture?

In some states, the building codes determine a definite ratio of glass area to floor area for every room in the house. Fenestra's large area of glass helps tremendously in meeting requirements such as these.

## 4—Burglar Protective

Fenestra Casements provide burglar protection. The 8" x 12" glass lights are not large enough to permit any intruder to enter by breaking a window and two



# Surprising Ventilation Features

locks must be unlocked before the swing leaf can be opened from the outside.

## 5—Fire Resistant

Fenestra Casements are fire resistant. Steel does not burn. Insurance companies often give lower rates on buildings equipped with steel casements. Fenestra Casements are installed with a minimum of wood trim and may be installed without any, thus decreasing the fire hazard still further.

## 6—Ventilation Control

Fenestra Casements provide better control of ventilation, because their uniform free and easy operation in all seasons and in every kind of weather reduces to a minimum the amount of effort necessary to open and close the window, whereas the usual Double Hung Windows frequently stick and require unusual effort.

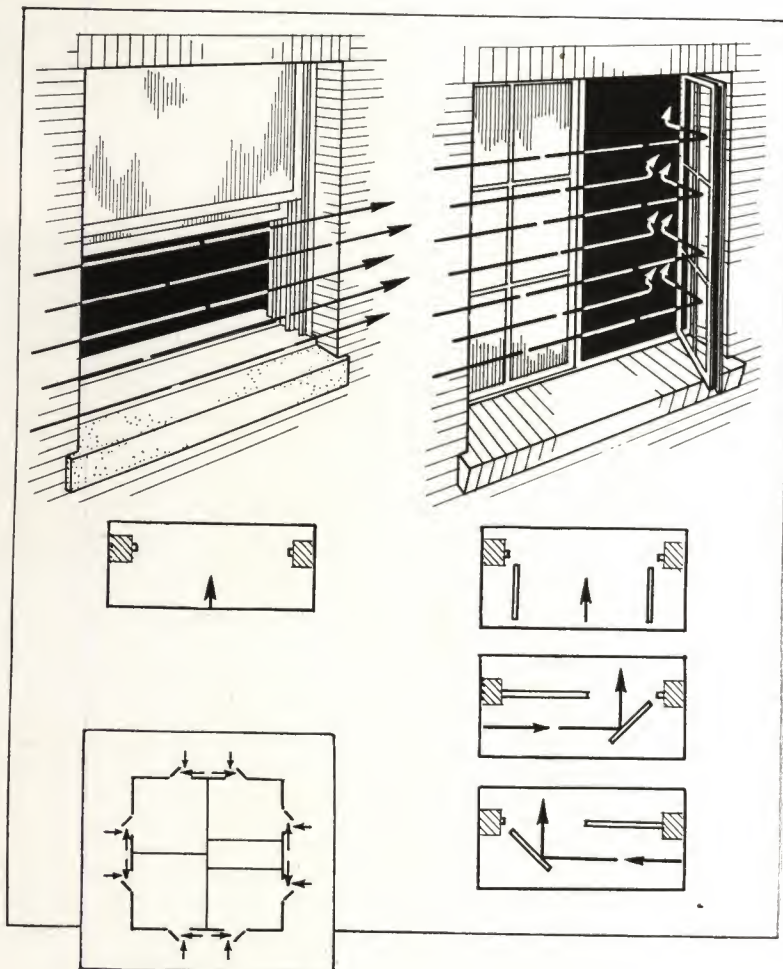
People who would sit in a draft or in an overheated room rather than tussle with a window that is hard to move, find that Fenestra Casements, operating almost at a finger's touch, are conducive to healthful temperatures.

By using a little care and forethought at the time the house is built, the designer can specify Fenestra Casements with exactly the amount of ventilating opening he desires for each room. He can secure, if he so desires, even 100% opening whereas the usual Double Hung Window never supplies more than 50% opening under any condition.

But even more important from a ventilating standpoint is the fact that Fenestra Casements may be set to catch the breeze blowing from any one of three directions.

Double Hung Windows admit only those

breezes that blow perpendicularly or nearly perpendicularly to the face of the sash. Breezes blowing parallel to the face of the sash pass by and very few enter. But Fenestra Casements catch not only the breeze that blows perpendicu-



larly but, if the swing leaves are open at an angle, they intercept and deflect into the room, even the breeze that blows parallel to the face of the window. (See sketch above.)

It is an astonishing fact not generally known, that even where single leafed Fenestra Casements are used the breezes from any one of four directions may be admitted to any room that has cross ventilation. All that is necessary is to make sure



# Easily Washed From Inside the Room

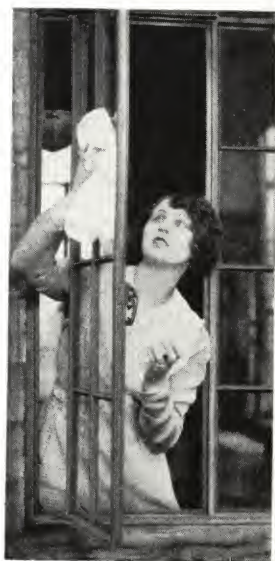
that the casements are so specified that when installed the hinge jambs will be toward the nearest outside corner of the building. Note how this works out as shown by the small sketch, page 10.

## 7—Easy Operation

Fenestra Casements never swell, shrink, warp or stick. Hence their operation is always uniformly easy and trouble-free even though the windows may have been newly painted.

## 8—Weathertight

The swing leaves on Fenestra Casements meet the frame with a wide, flat overlap both outside and inside. Swing leaf and frame are drawn tightly together in a flat, double contact by the cam action of the locking handle. Thus is created one of the best insulation and weather protective



mediums known to engineers—a trapped air space all around the swing leaf opening.

Furthermore, all Fenestra Casements, properly installed, are set in a bed of mastic (supplied free). This mastic applied between the window frame and the building construction actually seals the window into the wall, guards against leakage or drafts around the edge of the opening.

Insulation of this kind is almost impossible to secure with ordinary Double Hung Windows, due to the difficulty of sealing the cracks around the weight boxes which cannot be reached with mastic. Tests conducted at the University of

Michigan showed that a Fenestra Casement was more weathertight than a Wood Double Hung Window, weather-stripped.

## 9—Easy Washing

Fenestra Casements are easy to wash on the outside from within the room. Extension hinges swing the sash away from the frame as the casement opens, leaving a 4"-wide opening at the hinge jamb through which the window cleaner can extend her arm without difficulty and reach the outside of every glass light without leaning far out or sitting backwards on the sill.

## 10—Inside Screens

Fenestra "Screened" Type Casements include, unless otherwise specified, flat, steel framed, bronze mesh, inside screens which remain stationary in the opening, the window being opened, closed and locked through the screen but without touching it. "Standard" and "Economy" Type Casements accommodate metal, inside, swinging screens. See page 16.

## 11—Inside Storm Windows

Fenestra Inside Storm Windows are easily installed on Fenestra Screened Type Casements. They eliminate condensation and frost under all ordinary circumstances; reduce heat loss through the windows 60%; effect a saving in fuel. See page 17.

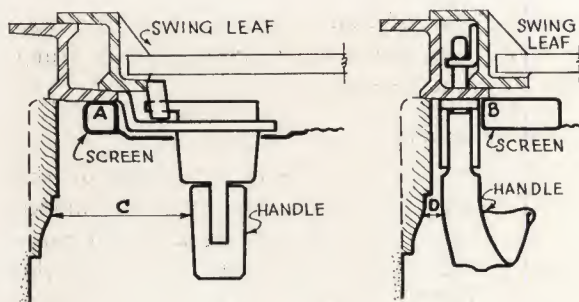
## 12—The Locking Handle

Some people ask why we have an opening in the screen and in the glass of the storm window to accommodate the casement handle. They suggest it might be easier to design the handle operating OUTSIDE the screen and storm window frames, leaving the screen mesh and the glass "unpunctured."

The accompanying drawings give the answer. Any handle operating OUTSIDE the frame of the screen or storm window is crowded for room. Therefore, it must be light in construction, its motion must be up and down and it becomes more of a Latch than a Lock. At the jamb, it crowds the screen, preventing adequate overlap (see B in diagram at right, page 12). It also crowds the plaster or inside trim (see D in diagram at right, page 12) making operation inconvenient. When two swing leaves meet in the center, two handles are



# Modern Windows are Good Insurance



required, also two screens and two storm windows.

But the Fenestra Handle is attached to a heavy steel bracket which permits it to protrude **THROUGH** the screen or storm window. Plenty of room is allowed for positive, sidewise locking action. The screen and storm window have wide overlaps (see A and C in diagram at the left). When two swing leaves meet in the center, one handle locks them both. Only one screen or one storm window is required to cover both swing leaves.

## 13—Fenestra Steel Casings

Fenestra Steel Casings are supplied where specified, on stock type single units of Fenwrought Casements. These casings eliminate all inside trim, stools and aprons; make plaster returns unnecessary. They form a smooth, durable, non-inflammable interior finish and save time and expense in window installation. See Page 13.

## 14—Already Painted

The flat, gray, priming coat with which all Fenestra Casements are painted before shipment provides an excellent base coat. A finish coat may be applied at any time in colors harmonizing with the color scheme of any room.

## 15—Standard Shade Brackets

Shade brackets are not supplied with Fenestra Casements but casements may be drilled at the top of each jamb member to accommodate standard shade brackets which may be purchased locally. Thus, shade and drapery supports may be attached to the casements themselves instead of to the surrounding woodwork or plaster.

## 16—Architectural Advantages

Fenestra Casements insure several distinct architectural advantages as compared to the usual type of Double Hung Windows:

(1) Due to the elimination of weight boxes, a

wide variety in the inside treatment of window openings is possible. (2) No broad, heavy, horizontal line is prominent at or near the center of the window as in the case of Double Hung Windows. (3) All glass in the Fenestra Casement is in the same plane, a feature impossible to secure in Double Hung Windows where one sash must, of necessity, slide past the other.

## 17—Glass is Inexpensive

Small lights of glass are less expensive than large lights, whatever grade of glass is used. Fenestra Casements with interior muntins effect a glass economy, not only in first cost but also in maintenance and replacement, as compared to the large glass lights commonly used in Double Hung Windows.

## 18—Possible Economies

Several worth-while economies are possible with the use of Fenestra Casements: (1) The first cost is reasonable; (2) Installation costs are minimized since the casements reach the job complete with no extra material to buy; (3) Interior trim is eliminated at the head and both jambs; (4) The cost of weather-stripping is eliminated.

## 19—Minimum Repairs Needed

Fenestra Casements require minimum repairs. No one ever needs to refit steel windows because steel sash do not warp or swell and never stick from excess paint or changes in atmospheric temperature or humidity. No cords fray out or break. No weights drop off. Muntin bars do not split or splinter.

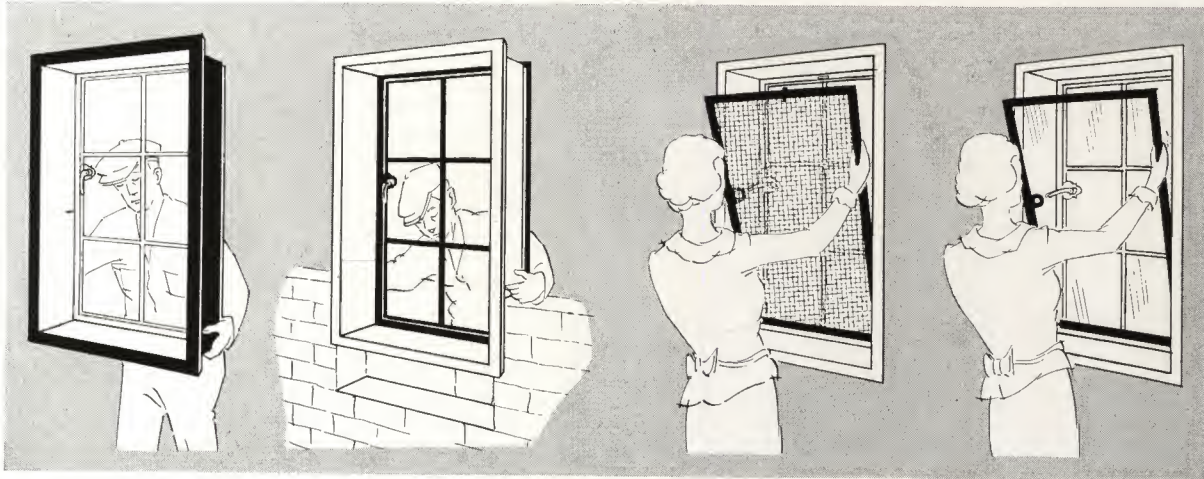
## 20—Building Insurance

What better insurance could any one ask for the safety of his investment? If you ever want to sell your home, these modern windows will prove to be a feature which draws prospects. They insure you against the decline in popularity and the speedy obsolescence which attend the use of materials that are declining in public favor.

The building of a home often is one of the largest investments a man makes during the course of his lifetime. How important then, to select carefully, modern, permanent windows that will last as long as the building stands and help increase its worth!



# The Complete Fenestra Window



1—Steel Casing

2—Steel Casement

3—Inside Screen

4—Storm Window

These four units combined, form the complete Fenestra Summer and Winter Window. The Casings, if used, must be purchased and installed with the Casements, but the Inside Screens and Inside Storm Windows may be purchased and installed at any time after the Casements themselves have

been in use. It is well, however, to specify the Casements "prepared for inside storm windows" so that if and when the latter are desired they can be installed with minimum labor and expense. The advantages of each of these four units are given on the following pages.

## Fenestra Casings

Fenestra Casings of 18-gauge steel are designed to attach around the perimeter of Fenestra Casement single units and extend  $4\frac{5}{16}$ " to the inside, plastered face of the wall. Casement and Casing are installed as an assembled unit and the Casing takes the place of either interior "trim," stool, and apron or plaster return, stool and apron.

Being of steel, the Fenestra Casing will not burn. It will not warp, swell, shrink, or discolor. It simplifies the window installation, minimizes erection costs and eliminates plastering troubles around the windows. It provides a smooth, durable, all-steel finish which is practically indestructible. It eliminates the time, labor and expense of mitering and fitting wood casings, back-bands and mouldings. It can be installed at a cost comparable with that of a plaster return with wood stools or wood casings and stools.

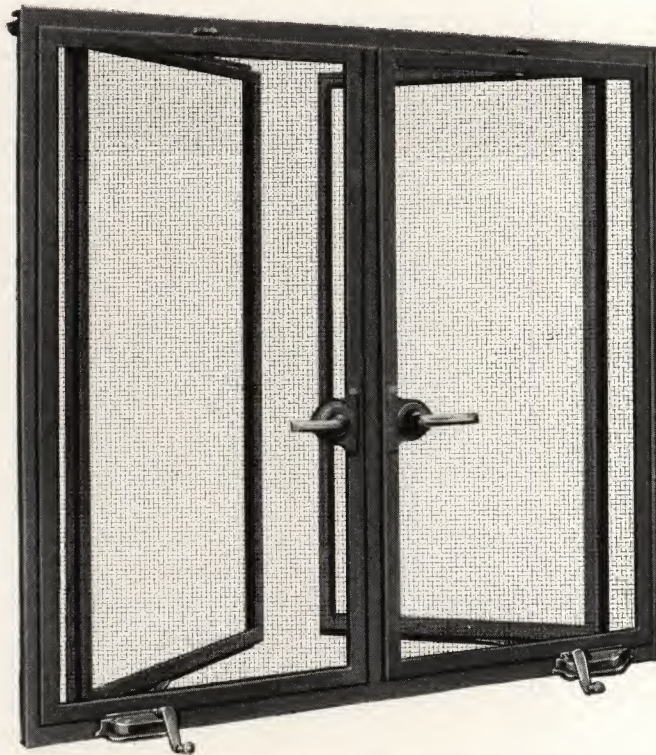
The inside face of the steel casing is  $1\frac{1}{2}$ " wide and is formed into a plaster lock at its outer edge. Usually the plasterer brings his finish coat up directly against and flush with the casing, thus simplifying his work materially.

Of course the Casing may be painted to harmonize with any scheme of interior decoration or to match the inside surfaces of the Casement itself.



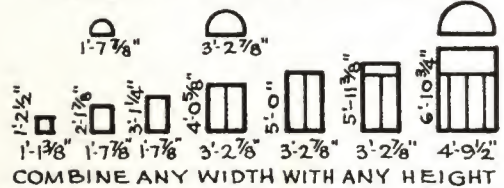


# The Fenestra "Fencraft" Casement

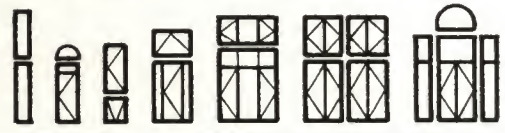


Screened Fencraft Casement

## RANGE OF TYPICAL WINDOWS



## TYPICAL COMBINATIONS OF UNITS



TOP  
HINGED



SIDE  
HINGED



BOTTOM  
HINGED



Head Section

Fenestra Casements usually are made in two classes of construction. One class,—shown on this page,—is called "Fencraft" and has sections  $1\frac{1}{4}$ " deep from front to back. The other, shown on page 15, is called Fenestra "Fenwrought" and has sections 1" deep. (Where specified, Fenestra "Custom Built" Casements with  $1\frac{1}{2}$ " sections can be supplied.)

The swing leaves usually open out, but can be designed to open in if so specified. Fenestra Flat Screens usually are supplied but the casements may be had in "Standard" types with swing screens if desired.

Often, these casements are supplied with interior bars (muntins) which divide the window into many small lights of glass, but usually they are shown with these bars omitted so that the windows may be glazed with large panes of plate glass or with leaded glass panels. Glass is not furnished.

Curved heads and transoms are available and

the various units may be combined side by side or one above another by the use of mullions so that the variety of combinations and dimensions is almost unlimited. Some of these interesting variations are shown above.

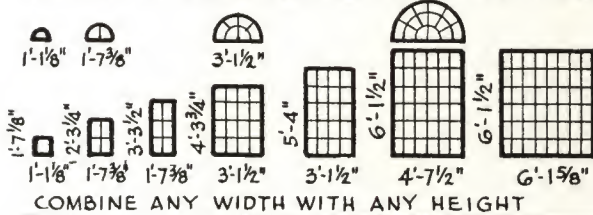
Hardware is pleasingly designed and may be had in a number of attractive finishes. Screened types are equipped with locking handles and sill operators but "Standard" types have locking handles only as the hinges are so designed as to hold the swing leaves in any desired position without the aid of sill operators.

Fencraft Casements are made in more than 40 standard types and sizes. Swing leaves usually are limited in number,—not more than two side hinged leaves in any one unit. The smallest Fencraft unit is  $1' 1\frac{3}{8}"$  by  $1' 2\frac{1}{2}"$ ; the largest standard unit is  $4' 9\frac{1}{2}"$  by  $6' 10\frac{3}{4}"$ . The standard dimensions and designs may be used to build up almost any effect desired as shown above.

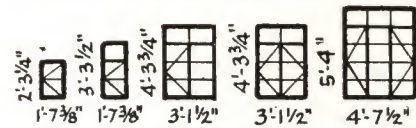


# Fenestra "Fenwrought" Casements

## RANGE OF SCREENED & STANDARD TYPES



## RANGE OF ECONOMY TYPES



## TYPICAL COMBINATIONS OF UNITS



Fenestra Fenwrought Casements are manufactured in "Screened," "Standard" and "Economy" Types from solid steel sections 1" deep, from front to back.

Screened Types have a Locking Handle, a "Roto Adjuster" at the sill and a fixed inside screen. Rotating the adjuster inside the screen opens the swing leaf outside the screen. Lights are about 8" x 12".

Standard Types have a Locking Handle, an inside hinged screen, and friction hinges which make a sill adjuster unnecessary. Lights are about 8" x 12".

Economy Types are limited in number and



Screened Fenwrought Casement

have glass lights about 16 5/8" x 12". The swing leaf usually is one light below the head. Otherwise they are similar to Standard Types.

Interior bars in all Fenwrought casements may be partly or almost wholly omitted to allow for leaded glass panels or Spanish or ultra-modern effects.

Transoms and sill ventilators are available (see Tiltin Windows). Swing leaves are never more than 2 lights wide.



Standard Fenwrought



Economy Fenwrought



Roto Adjuster



# "Tiltin" Windows Have Advantages

Fenestra Tiltin Windows are one light high and vary in width and are designed to attach at the sill of Fenwrought Casements.

The Tiltin ventilator is designed to tilt in about 4" at the top without any appreciable opening at the sill. In this position, the ventilator acts like a wind guard similar to those used on office windows.

Tiltin Windows are especially useful in bedrooms when moderate ventilation without direct draft is needed. The ventilators, partly open, direct air currents up over the heads of sleepers.

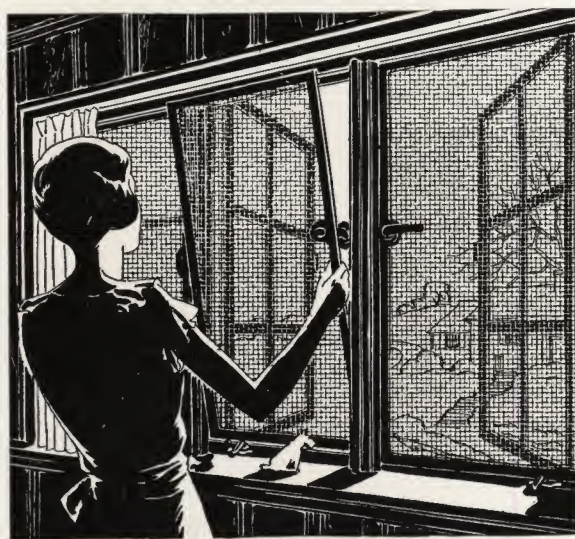
The same wind guard feature is an advantage in libraries, play rooms, sewing rooms and dens, the Tiltin ventilator preventing sudden gusts of wind from disarranging papers, patterns, games or materials.



Of course, these windows may be opened farther than merely 4" at the top. In fact they may be opened to a full 90 degrees so that the entire space is 100% open. This helps the ventilating problem materially if the weather is warm.

Made in sizes to fit any standard type of Fenwrought Casement.

## Fenestra Flat Type Inside Screens



Fenestra Flat Type Inside Screens have reinforced, cold rolled and rust-proofed steel frames and 16-mesh, oxidized bronze wire cloth. They fit Screened Type Casements, lying flat against the casement frame on the inside and covering only the ventilating part of the window. They are held by clips and can be set in place or removed in a jiffy without tools.

Although screens may be left in place the year round, if removed, they need not be numbered or marked as any casement will accommodate a screen from any other casement which has the same sized swing leaf and locking handle on the same side.

Each Flat Screen is designed to fit over or around the casement locking handle and sill adjuster so that the swing leaf on the outside may be opened, closed and locked from the inside without touching the screen.

"Standard" and "Economy" Type Casements accommodate swinging screens on the inside, hung on top and bottom studs. Screen frames are cold rolled, bonderized steel tubes with 16-mesh bronze wire. All swinging screens must be opened to open, close or lock the casement.

Where swinging screens are to be used with roller shades or drapery brackets the casement should be specified with a row of fixed lights at the top. Otherwise the drapery fixtures may prevent the screen from swinging open.

Screens need not be purchased with the casements as they may be installed months afterward.



# Fenestra Inside Storm Windows



Inside Storm Window—without  
Sill Ventilator



Inside Storm Window with  
Open In Sill Ventilator

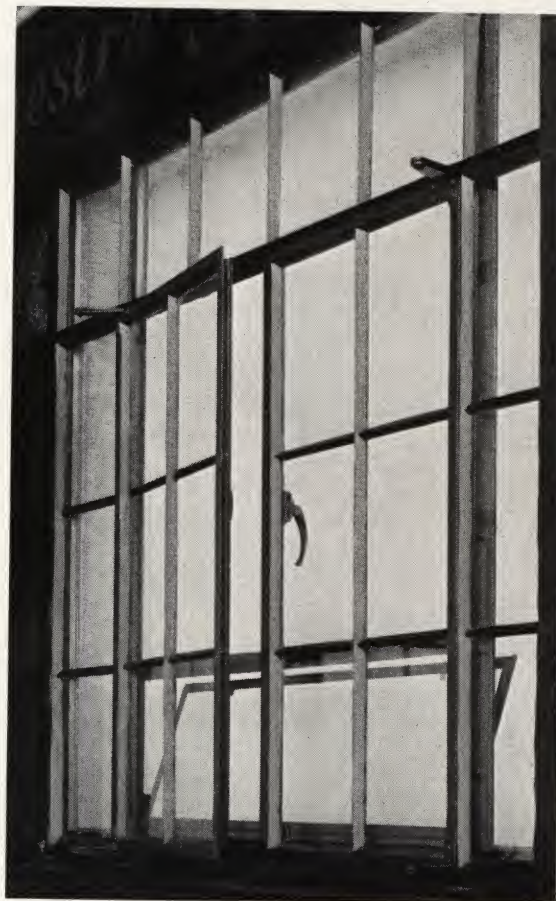
Fenestra Inside Storm Windows eliminate condensation and frost under all ordinary circumstances by creating a dead air space about  $\frac{3}{4}$ " wide between the Storm Window (inside) and the Casement (outside). They also reduce heat loss through the windows by about 60% and therefore save fuel and reduce the load on air-conditioning equipment.

The Storm Window itself is a frame of light-weight, cold rolled, tubular steel with corners mitered, welded and reinforced. It is shipped glazed with double strength glass in which is a circular opening to accommodate the casement locking handle. Around the handle opening and around the entire outside frame of the Storm Window weathering seals of extruded rubber are fitted so that when the Storm Window is in place it covers and seals the entire opening.

The Storm Window fits against the casement exactly like the inside screen (screen and screen clips having been removed) and is held by knurled screws applied from the inside. It is easily removed with a screw driver, for summer storage.

If specified, the Storm Window can be supplied with a Tiltin ventilator at the sill, providing about a 3" opening for restricted ventilation.

Few houses need Storm Windows at every window. Usually they are applied on the side of the house facing the prevailing wind or in rooms most used in winter activities.



Outside view of Fenestra Casement equipped  
with Inside Storm Window



# But Don't Fenestra Cost More?

Fenestra Casements, purchased in Maine or in California are made in the same way, designed from the same material, finished identically, carry the same hardware. The buyer has the benefit of a nationally standardized quality and value. The prices will be the same subject to slight variation in transportation charges.

Some makers of windows of the usual Double Hung Type also have a national standard, but there are many windows on the market made by small local manufacturers and these differ one from another in grade of materials, in design, in workmanship and particularly in price. The customer has almost nothing by which to measure the quality of his purchase in proportion to the price he pays.

For this reason, it is difficult to compare the cost of Fenestra with the cost of other windows.

The only way to be certain as to which costs more and which costs less is to secure definite bids on all the windows for your own particular home and then make a comparison.

In getting such bids, do not be content with lump sum totals. Insist that these totals be broken down into the various items of cost. This may seem to be a useless bother, but it is apt to disclose hidden opportunities for saving a good sized sum of money.

Most people, you know, think of a wood window as nothing more than a frame and two sash. This is natural, for these items are the largest and most prominent pieces.

But in addition to frame and sash, other less obvious materials are needed: weights and cord

and screens, for instance, and the "interior trim" which includes casings, backbands and stops at the head and both jambs of the window as well as a "stool" and an "apron" at the sill.

Because this extra window material is often purchased along with other things such as baseboards, door trim and picture mouldings which have nothing to do with windows, all of them are frequently lumped together under a single item of cost called "*Mill Work*."

You can easily see, therefore, that unless you insist on getting separate prices on all of the window materials, something is very apt to be omitted from your wood window figure.

It is an astonishing fact that the material for a single-frame Double Hung Wood Window is sometimes delivered in as many as 29 pieces.

To carefully fit and assemble all of these pieces requires no small amount of carpenter labor, but this labor is often included with the time employed in hanging doors, fitting baseboards, etc.—all under the heading of "*Finish Carpentry*."

Even the General Contractor seldom knows how long it takes to assemble a single window or how much "Installation Labor" should be charged against the windows in a house.

But this item of "Installation Labor" is important. In the first place, a window is of no use to anyone until it is installed in a building. Therefore, "Installation Labor" is properly a part of the window cost. In the second place, Double Hung Wood Windows are delivered in many pieces and require much installation labor while Fenestra Steel Casements are delivered

## Comparison Between Fenestra Casement (Economy Type 4416) and Typical, Single Frame, Double Hung Window

	Double Hung	Fenestra
Cost of Frame and Sash (Open).....	\$6.20	\$6.66
Cost of other materials.....	4.00	6.56*
Installation Labor.....	6.15	1.75
<b>TOTAL COST.....</b>	<b>\$16.35†</b>	<b>\$14.97†</b>
*Includes steel casing and metal screen.		
†Glass and Glazing and Freight extra, depending on local conditions.		
Wall Space Occupied.....	13 sq. ft.	13 sq. ft.
Light area provided.....	8 sq. ft.	10.7 sq. ft.
Cost per sq. ft. of Light.....	\$2.21	\$1.40
Note that each window occupies 13 sq. ft. of wall space but the Fenestra Casement gives 2.7 sq. ft. or 33⅓% more light although it costs less money. Since the admission of light is one of the chief reasons for the use of windows, it is fair, we think, to emphasize the fact that light through the Double Hung Window costs \$2.21 a sq. ft. while light through the Fenestra Casement costs \$1.40 a sq. ft.		



# The Answer is "No, Sometimes Less"

almost completely assembled (sash fitted, hung and painted) and require very little installation labor.

Here, then, is a chance for saving—an opportunity that is often completely overlooked.

From estimates made by many contractors who have sent us figures on Double Hung Window costs, we have compiled the comparisons at the bottom of these two pages. They are sufficient, we think, to demonstrate that:

*A Fenestra Steel Casement may cost MORE than a Double Hung Window as regards Frame and Sash and even as regards Total Material Cost, but may still cost LESS than the Double Hung window when Total Installed Costs are considered.*

We do not say this is always true, but since the windows in any house run about 2% or 3% of the total house cost, we think most people will agree that the possibility of such a saving is well worth investigating.



The pictures above show two houses built by the same contractor from the same set of plans. They are identical except that one has Fenestra

Casements while the other has not. Comparative costs showed that the windows not Fenestra cost \$320.86. The Fenestra Casements cost \$283.21.

If you want to get down to finer details, you can get your contractor to set down his own costs after each of the following items:

## DOUBLE HUNG WINDOWS

### (Sash and Frame 33%)

One Frame.....  
Two Sash (unglazed).....

### Other Material (37%)

Weights.....  
Cord.....  
Lift and Lock.....  
Stool and Apron.....  
Inside Trim.....  
Glass and Putty.....  
Full Screen.....  
Weatherstrips.....

### Labor Costs (30%)

Set, Plumb and Brace Frame  
Fit and Hang Sash.....  
Caulk Frame.....  
Fit and Attach Inside Trim..  
Fit and Attach Stool and  
Apron.....  
Glaze Sash.....  
Attach Hardware.....  
Fit and Hang Screen.....  
Fit and Attach Weatherstrips  
Paint Sash (2 coats).....  
Paint Trim (3 coats).....  
Paint Stool and Apron  
(3 coats).....  
Paint Screen (2 coats).....  
Refit Sash After Completion

## FENESTRA STEEL CASEMENTS

### Sash and Frame (47%)

Fenestra Casement  
(unglazed).....

### Other Material (30%)

Metal Screen.....  
Heel Casing.....  
Glass and Putty.....

### Labor Costs (23%)

Set and Plumb Casement...  
Glaze.....  
Paint (1 coat).....  
Paint Casing (2 coats).....  
Attach Hardware.....

## Comparison Between Fenestra Casement (Economy Type 6426) and Typical Double Frame, Double Hung Window

	Double Hung	Fenestra
Cost of Frame and Sash (Open).....	\$10.00	\$11.47
Cost of other material.....	6.83	9.65*
Cost of Installation Labor.....	9.85	2.25
<b>TOTAL COST.....</b>	<b>\$26.68†</b>	<b>\$23.37†</b>

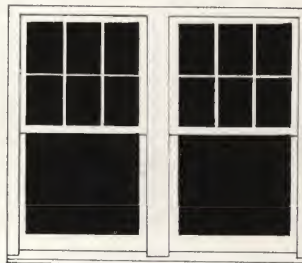
\*Includes steel casing and metal screen.

†Glass, Glazing and Freight extra, depending on local conditions.

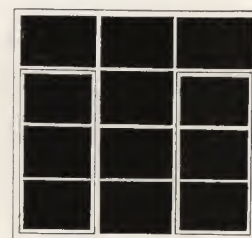
Wall Space Occupied.....	27 sq. ft.	20 sq. ft.
Light Area Provided.....	16 sq. ft.	16 sq. ft.
Cost per sq. ft. of Light.....	\$1.61	\$1.45

Note that here the Light Area of the two windows is the same but the Double Hung Window occupies 7 sq. ft. or 35% more wall space.

Double Hung



Fenestra





# Venetian Blinds are Popular!

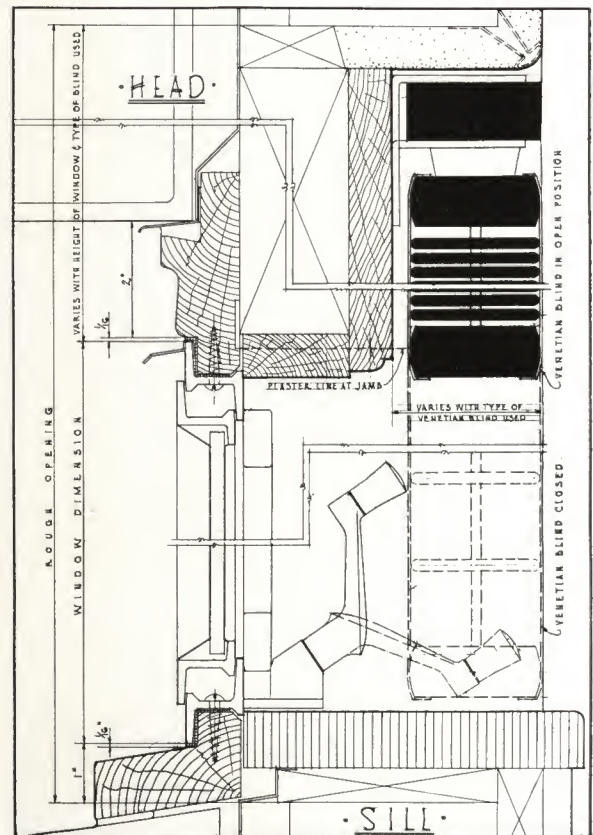


Venetian Blinds raised to the top of the window

The use of "Venetian Blinds" in connection with overdrapery seems to be increasing and many of the new, modern homes have eliminated the roller shade in favor of these window coverings of thin slats—some of them highly decorated—which appear to have somewhat more flexibility.

When "Venetian Blinds" are used, the slats may be tilted open or closed even when the blind is lowered, thus affording control of light and ventilation. A pull cord at the jamb raises the blind to the top of the opening if desired.

In a raised position, the "Venetian Blind" requires considerably more space than does a roller shade. Usually a portion of the upper glass light is covered. If desired, a reveal may be built above the window into which the blind may be drawn as indicated by the drawing above. This must of course be designed when the house is built.



Venetian Blinds on the face of the wall  
Drapes and valance will cover



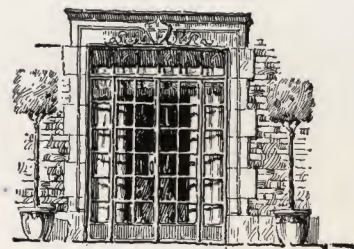
# Fenestra French Doors are Available

Fenestra French Doors may be had in keeping with the Fenestra Casements. These doors are designed for use singly or combined either with Fenwrought or Fencraft types. Frequently the doors are centered, with side lights and curved or square transoms attached.

Each door has two swing leaves fitted with three steel friction butts. The inactive leaf has bronze head and sill bolts. The active leaf has a bronze lock, aluminum cased with thumb latch on the inside and bronze handles on both inside and outside. Cylinders on both sides or on the outside only may be had if specified.

While the standard type of Fenestra Casement Door is not equipped with a threshold, an extruded bronze auxiliary threshold can be furnished as an extra.

French Doors are not recommended for front entrances.



## Almost Any Glass May Be Used

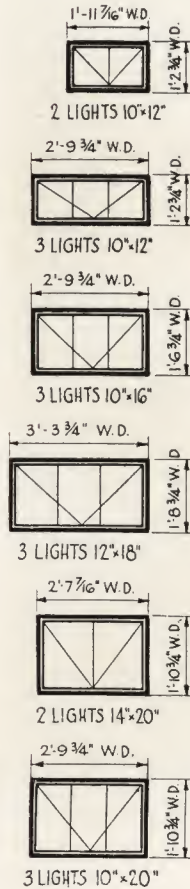
Fenestra Steel Windows always are priced on an unglazed basis and shipped without glass. Glass and putty can be purchased locally from almost any glass or paint store. Be sure to get steel window putty. This contains litharge, which makes it stick to steel.

Plate glass is of course best and also most expensive. Double strength glass usually will do but single strength glass is not recommended. Of course, special glass may be used if desired, including "health glass" or "diffusing glass" or others.



# Fenestra Steel Basement Windows

SOLD EXCLUSIVELY THROUGH DEALERS

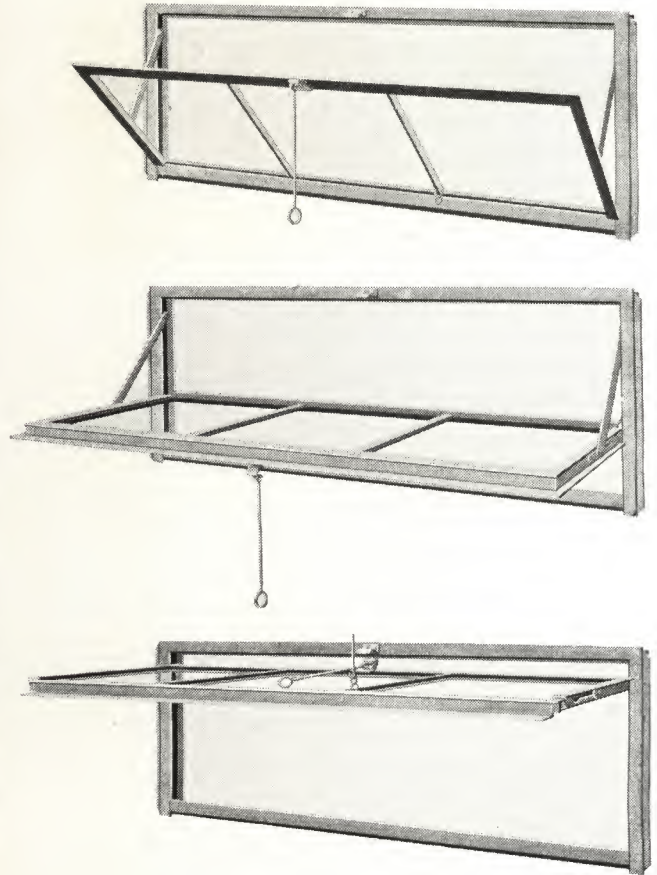


Built from Casement sections. Both frame and ventilator pivot ended and welded at all four corners. Two point flat contact weathering all around the opening when vent is closed, Weather protected even when open.

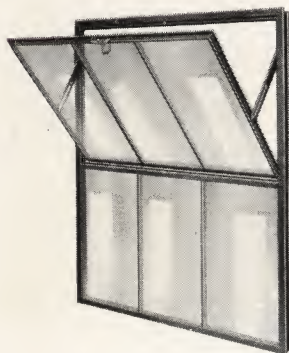
Vents carried on steel balance arms, open to any one of three positions. Easily removable when desired. Spring latch at head easily operated from floor by a 10" operating rod. A 14-gauge steel fin welded outside each jamb member imbeds in the masonry and forms a guide for mason in laying up both the inside and the outside of the wall.

Steel framed, bronze mesh screen available where specified. Attached in a jiffy with an ordinary screw driver.

Vertical mullions may be had for joining two or more windows side by side in the same opening.



## The Fenestra Utility Window



"Utility" Window

Made of casement sections with the lower lights fixed. The ventilator is one-light high, tilts in at the top and is held by side arms. A spring catch at the head automatically locks the window when closed. Made in fixed or ventilated types in-one size only—3'3 3/4" in width by 3'7 1/4" in height.

Especially adapted to provide light in basements where houses are set close to the grade. The lower panes extend below the grade and a grating over the areaway makes the window appear one-light high as viewed from the outside.

Utility Windows are also desirable for use in private garages, public garages, filling stations, stores, shops and farm buildings. The tilting ventilator does not interfere with the use of space directly below the window and it admits abundant ventilation without any direct drafts.



# Used in these Architects' Own Homes



Norman Home of Mr. A. W. Coote, Architect,  
Great Neck, L. I., N. Y.



Bungalow Home of Mr. H. W. Cordes, Architect,  
Cincinnati, Ohio

From among architects who testify to the value of Fenestra Casements by using them in *their own homes*, we have selected the following as typical of Fenestra's wide distribution:

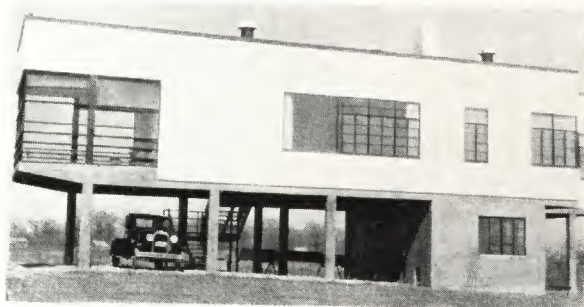
Mr. Sidney L. Adler, Mobile, Ala.  
Mr. Arthur E. Allen, Garden City, L. I., N. Y.  
Mr. William B. Betts, Ravinia, Chicago, Ill.  
Mr. A. C. Borzner, Beachwood Park, Pa.  
Mr. E. H. Clark, Winnetka, Ill.  
Mr. W. C. Coates, Jr., Fresno, Calif.  
Mr. A. W. Coote, Great Neck, L. I., N. Y.  
Mr. H. W. Cordes, Cincinnati, Ohio  
Mr. N. C. Cox, Cleveland, Ohio  
Mr. C. W. Ditchy, Northwood, Detroit, Mich.  
Mr. W. W. Drummey, Jamaica Plain, N. Y.  
Mr. R. R. Fields, Rosemont, Pa.  
Mrs. Beulah Fleming, Albuquerque, N. M.  
Mr. Carl E. Jefferson, Oakland, Calif.  
Mr. W. E. Kelly, Portland, Ore.  
Mr. Edwin Kline, Great Neck, L. I., N. Y.  
Mr. Louis R. Moss, Kenwood, Md.  
Mr. John R. Parmalee, Nashville, Tenn.  
Mr. Lucius A. Phillips, Los Angeles, Calif.  
Miss Rachel C. Raymond, Belmont, Mass.  
Mr. J. S. Reed, Birmingham, Ala.

Mr. George M. Riddle, Long Beach, Calif.  
Mr. Robert Tappan, Forest Hills, L. I., N. Y.  
Mr. Luther E. Uhlig, Short Hills, Dayton, Ohio  
Mr. Wm. B. Wiener, Shreveport, La.

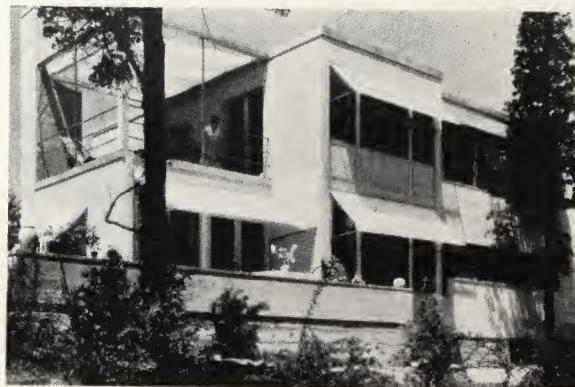
Fenestra Casements have been used throughout in many prize-winning home designs submitted in architectural competitions and in national contests featuring beautiful and practical houses actually built.



Colonial Home of Mr. Arthur E. Allen, Architect,  
Garden City, L. I., N. Y.



Modern Home of Mr. W. B. Wiener, Architect,  
Shreveport, La.



Modern Home of Miss Rachel C. Raymond, Architect,  
Belmont, Mass.



# Some Notable Fenestra Installations



London Terrace, New York City  
Farrar & Watmough, Architects



Tudor City, New York  
F. F. French, Designer



International House, Chicago U., Chicago, Ill.  
Holabird & Root, Architects



Meany Hotel  
Seattle, Wash.  
R. C. Reamer, Arch.

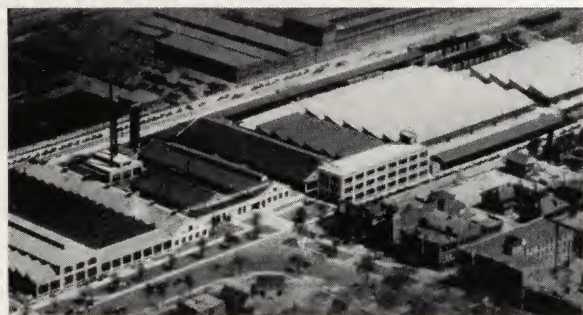
Fenestra Windows have been supplied, not only as casements for residences but also in some of the finest apartments, hotels, schools, hospitals and office buildings in America and in almost every type of commercial and industrial structure. Notable installations include the famous Tudor City and London Terrace Apartments in New York City; the Meany Hotel, Seattle, Wash.; and Casa Riviera Apartments, Long Beach, Calif. International House at Chicago University is typical of a number of beautiful Club, Fraternity and Dormitory installations.



Casa Riviera  
Long Beach, Calif.  
R. D. King, Architect

## It's Easy to Buy Fenestra Anywhere

Even though you may not know who handles Fenestra Products in your town, their purchase



Plant and Main Office of Detroit Steel Products Co.

is not at all difficult. Just ask your architect to specify "Fenestra." If you have no architect, instruct your contractor to get an estimate on "Fenestra."

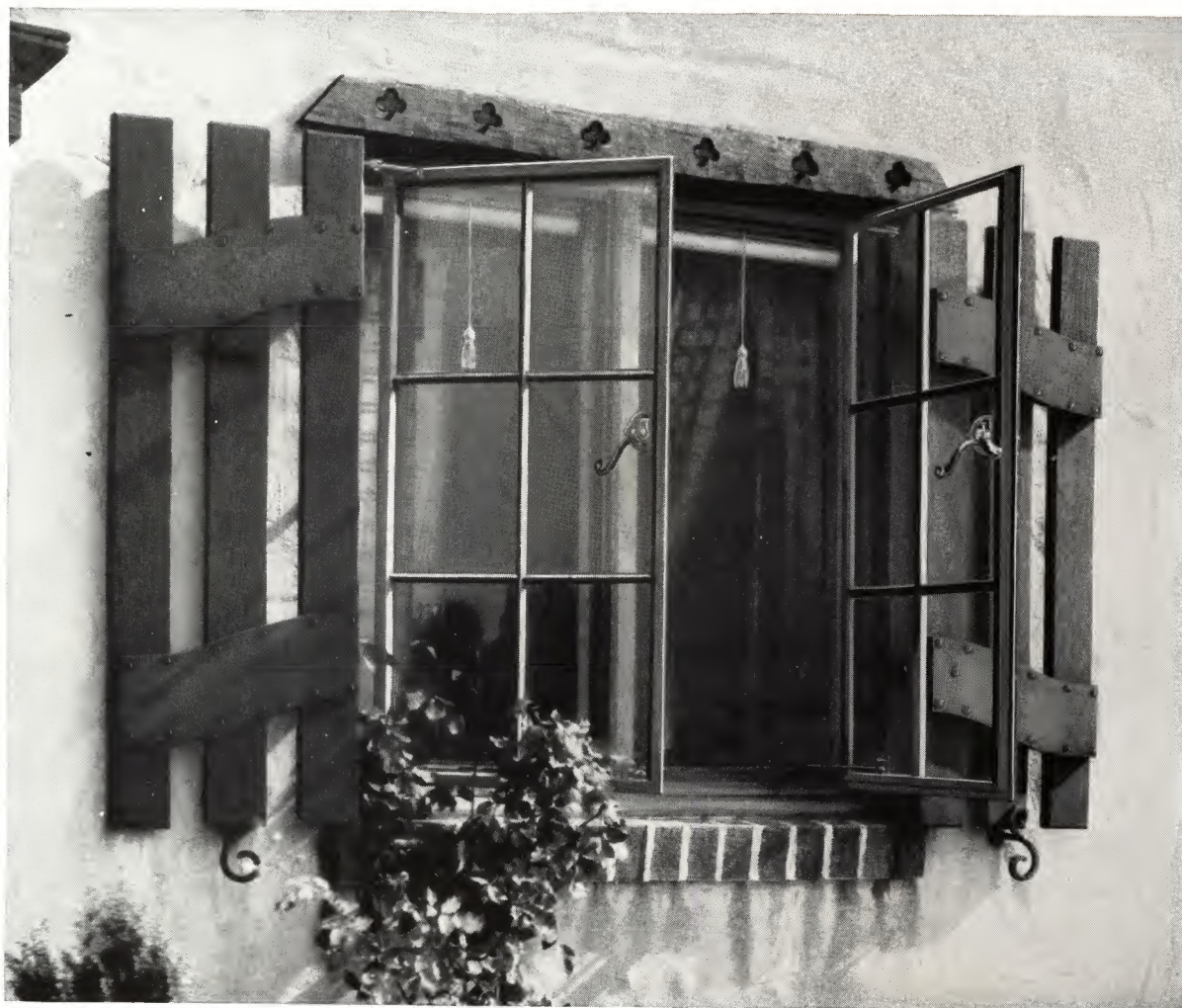
Almost all designers and builders know where

to find our types, sizes and details in Sweet's Architectural and Sweet's Engineering Catalogs. Many of these men are in constant touch with our field representatives. If you prefer to write us direct, a card to our main office at 2250 East Grand Boulevard, Detroit, Michigan, will bring a prompt reply and will then be referred to the Fenestra field man nearest you.

The Detroit Steel Products Company, organized in 1904, is the oldest and largest manufacturer of steel windows in the United States.

Fenestra Products are marketed through District Offices and Agents located in approximately 200 cities and through hundreds of Dealers covering almost all towns of 10,000 or more. Well stocked warehouses, strategically located, and backed by factories at Detroit, Michigan, and Oakland, California, insure prompt shipments.





This catalog is prepared especially for YOU as a prospective home owner. Undoubtedly your Architect and Contractor are familiar with Fenestra Windows, but we shall be glad to give them details, layouts and prices on these windows for your particular home, if you care to send us their names and addresses.

## DETROIT STEEL PRODUCTS COMPANY

2250 EAST GRAND BOULEVARD

• •

DETROIT, MICHIGAN





*Fenestra*

DETROIT STEEL PRODUCTS COMPANY

2250 EAST GRAND BOULEVARD

• • DETROIT, MICHIGAN



# FITZGIBBONS

*Your Guide to dependable, low-cost*

**HEATING**

★  
**HOT WATER**

★  
**AIR CONDITIONING**





## *Your Guide to dependable, low-cost*

# HEAT ★ HOT WATER ★ AIR CONDITIONING

★ Is the home you are building going to be the cozy, comfortable place you anticipate? The answer depends to a very large extent upon the mechanical equipment that goes into it—the equipment for *heating, hot water and air conditioning*.

Your home may be attractive, it may be well laid out and nicely finished and furnished. Even so, you will never be entirely happy in it if you cannot heat it properly in winter, if you cannot maintain uniformly comfortable, healthful conditions all through the year, or if you cannot get all the hot water you

want for kitchen, laundry and bath, when you want it . . . and all at reasonable cost.

Heat, hot water and air conditioning are so important that, even though you depend on your Architect, Builder or Heating Contractor to plan these services, it is well for you to check up on the equipment being selected and satisfy yourself that dependable, economical results are being assured.

The information contained in the following pages of this bulletin will help to guide you in doing this.

## Check particularly these vital points

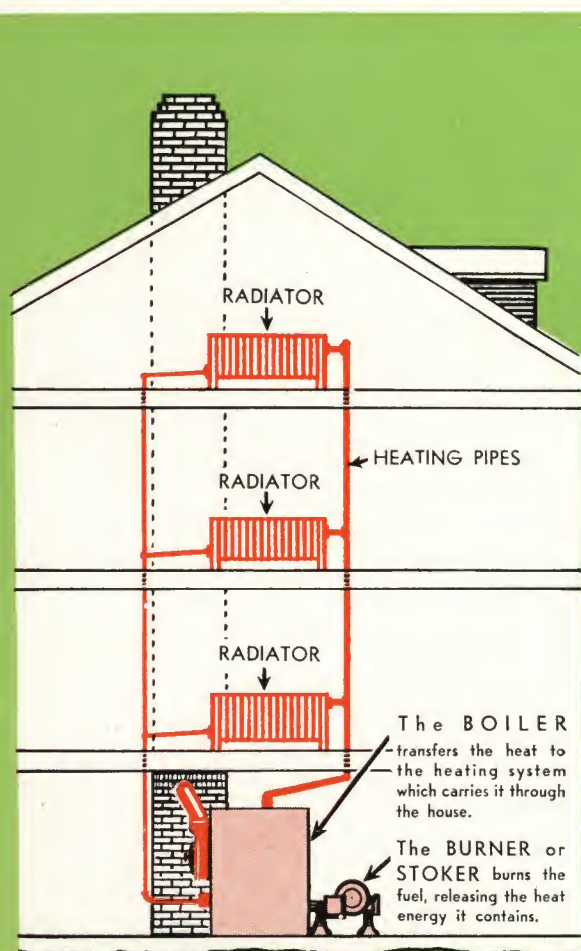
### HEATING BOILER

Every heating system consists of three main parts:

- (1) *The fuel burning mechanism*  
Oil burner, gas burner, mechanical coal stoker, or just the plain grate if you are going to fire your coal by hand.
- (2) *The heat transfer unit*  
This is the boiler.
- (3) *The pipes and radiators or ducts*  
Ducts are used where you have air conditioning.

Now, the fuel burning mechanism, be it oil burner, gas burner, or coal stoker, *does not heat the house*. Its function is to burn the fuel and so release the stored up heat energy.

*It is the boiler that picks up this heat and transfers it to the boiler water, from where it is carried by the piping to all parts of the house.* And upon the speed and efficiency with which the boiler is capable of performing this function, depends the speed with which your house will be heated, and the amount of fuel you will have to burn to keep it properly heated. The design of the boiler also has an important bearing on the efficiency with which the fuel burning mechanism—oil or gas burner or coal stoker—performs its function of burning the fuel. For satisfactory results you must have a boiler designed and built specifically for the fuel you are going to burn.



*Simplified diagram of a heating system. It shows the three main parts to every system and makes clear the leading part played by the BOILER in heating your home.*

*For Further Information turn to page 16*



So you see, *the boiler* is the important element in any heating system, the principal factor in determining heating performance and heating costs.

By all means, check up on the heating boiler that is going into your home and when you do, check particularly for the following points:

## IS IT A STEEL BOILER?

In the old days when hand firing of coal prevailed, residence boilers were made of cast iron. Then came the development of automatic heating with oil, gas and mechanical stokers.

At first, burners and stokers were installed in existing boilers. It soon became evident, however, that these boilers were not suited to automatic firing. Heating was slow and fuel consumption was high.

Attempts were made to redesign some of the old type boilers and dress them up for automatic firing, but this proved a costly and impractical expense.

The development of scientifically designed steel boilers provided the answer to the problem; steel provides maximum strength and endurance; it offers every latitude to scientific designing; it insures efficiency and economy in operation; it eliminates all possibility of cracks and breaks.

For proof of the superiority of steel boilers, one needs but to turn to the large commercial, industrial and institutional buildings. *In these buildings where heating service must be absolutely satisfactory and reliable, and where heating costs must be kept as low as possible, steel boilers are most generally used.*

Today, steel boilers for oil, gas, stoker or hand firing, are available for any and every size home. Thus, every home owner can now enjoy their advantages. And so, if you want to be sure of quick heating, uniform temperatures, low fuel bills and freedom from boiler worry and trouble for the life of your building, *see to it that a modern steel boiler goes into your home.*

## IS IT EASY TO CLEAN?

In selecting a boiler this feature is usually not given the attention it deserves. With all combustion—coal, oil or gas—there is *some* deposit of soot on the working surfaces of the boiler. Now, this soot, since it does not allow heat to pass through readily, cuts down the boiler's efficiency. Periodic cleaning is, therefore, essential with every boiler.

In many boilers, flue passages are very hard to get at. These difficult-to-clean boilers are generally not cleaned, which means a constantly decreasing efficiency reflected in poorer heating and steadily mounting fuel bills.

*Be sure you get a boiler that is easy to clean.*



*Plenty of hot water when you want it. Make sure you are going to have it in your home.*

## WILL THE BOILER SUPPLY YOU WITH DOMESTIC HOT WATER?

In former years, you had to have a lot of separate equipment for supplying domestic hot water. But now, you can get a boiler that will give you all the hot water you need, all year 'round, even without a storage tank. Think of what that means in saving on initial cost of equipment, in space saving and in hot water costs. *Certainly you want such a boiler.*



*On the following pages* you will find illustrations and descriptions of *steel boilers* for oil, gas, coal or mechanical stoker firing that satisfy all requirements, including the hot water and other special points covered in the foregoing paragraphs. These boilers work equally well in steam, vapor, vacuum or hot water heating systems.

## AIR CONDITIONING . . .

A word here, about AIR CONDITIONING. Today, even small homes of moderate cost are being air conditioned. A few years hence, air conditioning will unquestionably be the rule in all new buildings and a home without this modern improvement for health and comfort, will be definitely less "sellable." Plan now to safeguard your investment. Read about the development described on pages 14 and 15 which combines *heating, hot water supply and air conditioning*, all in a single compact unit.



# FITZGIBBONS

## the FITZGIBBONS OIL-EIGHTY AUTOMATIC

*for automatic  
heating with*  
**OIL**

★ For satisfactory heating with oil you want first of all a *steel boiler*. Only steel has the combined strength and resiliency to withstand the repeated expansion and contraction of metal caused by the continual on-and-off operation of the burner, and only steel permits of a design that provides the conditions the burner needs, to burn oil efficiently. Oil Burner men themselves recognize this, as is indicated by available statistics, which show that 43 out of 73 oil burner manufacturers who distribute boiler-burner units, have selected *steel boilers* for use with their burners.

Next you want a boiler that is capable of absorbing and transferring heat as fast as the burner liberates it so that no heat will be wasted and so that your house will heat up quickly in response to burner operation. Only a *steel boiler*, designed and built expressly for oil burning, can do this, and give you quick heat and uniform temperatures at low fuel cost.

Such a boiler is the Fitzgibbons OIL-EIGHTY Automatic, the boiler that is illustrated and described on the next three pages. This handsome modern steel boiler will not only assure you of quick, dependable, low-cost heat for as long as your house lasts, but in addition will *provide you with an unfailing supply of domestic hot water, winter and summer.*



*For Further  
Information  
Turn to Page 16*





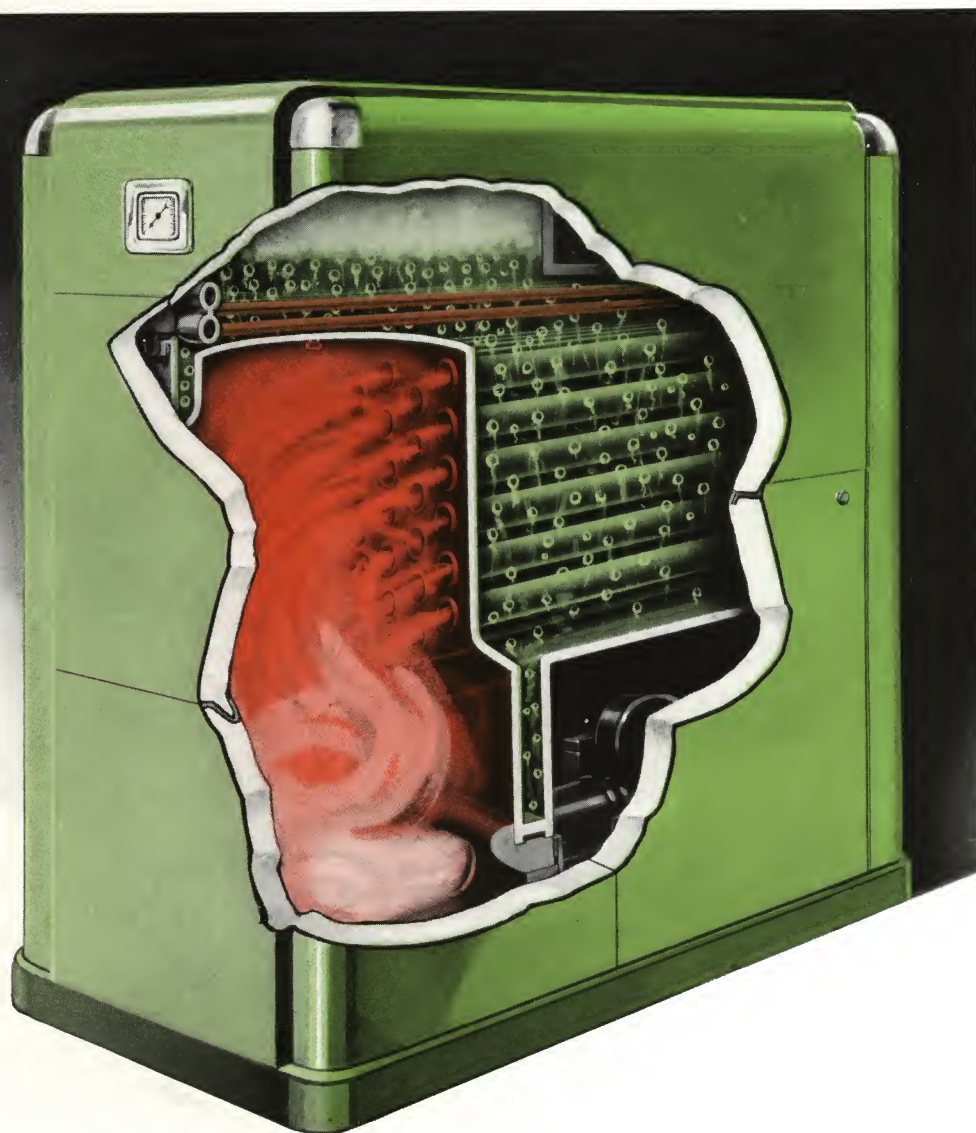
## ALL COPPER-STEEL

Built entirely of steel boiler plate containing a fixed percentage of copper fused with the metal, which serves to effectively resist corrosion. The tubes as well are made of this same rust-defying, copper-bearing steel, assuring an equally long life.

## HIGHLY EFFICIENT

The OIL-EIGHTY is in reality a *small power plant boiler*, similar to the big Fitzgibbons steel boilers that are used to heat the large commercial, institutional and industrial buildings, where heating *must be reliable and economical*. It embodies the features which give these big





*This cut-away view of the OIL-EIGHTY makes clear the simple, sturdy design and construction.*

boilers the dependability and economy demanded of them—the developments of an unbroken 50 years of successful steel boiler building. With this boiler in your basement you can be sure of the same fine heating performance and economy of fuel that have turned thousands of OIL-EIGHTY owners into enthusiastic boosters.

## **OPERATES WITH ANY OIL BURNER**

Any good oil burner of either the rotary or gun type, can be used with the OIL-EIGHTY. This leaves you free to select the burner that offers you the most reliable service in the particular

section where your home is located—an important consideration. Your local oil burner dealer will be glad to see an OIL-EIGHTY specified, because burner men generally, know that this boiler provides the conditions essential to best burner performance.

## **HOT WATER SUPPLY**

On pages 12 and 13 of this bulletin you will find a description of the Fitzgibbons submerged domestic hot water supply copper coils available in OIL-EIGHTY boilers.

## **COMPACT AND ATTRACTIVE**

The illustration gives but a fair idea of the beauty of the OIL-EIGHTY. No picture can



do more. But beauty is not all. Within that tastefully colored, chromium-trimmed steel jacket are housed *all of the essential equipment for automatic oil heat and year 'round domestic hot water service* including burner controls. Though out of sight and safely protected, burner and controls are readily accessible through the large, easily removable panels. The space-saving features of the OIL-EIGHTY will enable you to do a lot more with that extra basement room.

## THOROUGHLY INSULATED

With the OIL-EIGHTY your basement room can be just as comfortable as any other room in the house because the entire jacket is heavily lined with insulating material which keeps the heat *inside* the boiler. This advantage is particularly appreciated when the boiler is operated in the summer for hot water. Burner and combustion sounds are also minimized by the enclosure of the burner.

## EASY TO CLEAN

Cleaning the OIL-EIGHTY is a very simple operation, infrequently required because of the boiler's high combustion efficiency. A few strokes of the wire brush (supplied with boiler) through the straight, unobstructed tubes, accessible through the large front and rear doors, remove all deposit. In a few moments boiler surfaces are clean as new. Thus, the boiler's initial high efficiency is readily maintained.

## TWELVE SIZES

This wide range of sizes offers you a boiler that is neither too large nor too small, but just right for your heating requirements—and that means proper heating and maximum economy.

The OIL-EIGHTY works equally well in steam, vapor, vacuum or hot water heating systems.

## ADAPTED FOR AIR CONDITIONING

If you are not planning on air conditioning now you may want to add it later. The OIL-EIGHTY will permit you to do this, for it is perfectly adapted for service with air conditioning equipment.



*If you are going to burn oil, the OIL-EIGHTY is the soundest investment you can make from every point of view.*

## for automatic heating with GAS

★ Automatic heating with gas is very similar to automatic heating with oil in so far as basic combustion and heat transfer principles are concerned. Hence, the design and construction of the boiler best suited to gas firing closely parallels the boiler for oil firing.

FITZGIBBONS boilers for gas firing are very similar to the OIL-EIGHTY Automatic oil burning boilers described and illustrated in the preceding pages. They are built entirely of strong, durable, dust-defying copper-steel, and are characterized by the same quick heating and highly efficient, fuel-saving performance for which the OIL-EIGHTY is noted. Likewise, they are handsomely jacketed, compact, and will operate equally well with any gas burner. Like all Fitzgibbons boilers they are exceptionally easy to clean. They are also available with the submerged domestic hot water coils described on pages 12 and 13. They are perfectly adapted for service with air conditioning equipment. Twelve different sizes accurately meet the heating needs of any home.

Fitzgibbons gas burning boilers DO NOT require A.G.A. approval since they are not sold by us with an integral gas burner and its controls. (We do not manufacture gas burners, oil burners or stokers). Fitzgibbons Boilers with conversion gas burners are giving splendid satisfaction in homes from coast to coast.



# FITZGIBBONS

## FITZGIBBONS

### COAL-EIGHTY AUTOMATIC

*for automatic  
heating with*  
**STOKERS**

★ Developments in mechanical coal stokers have made automatic heating with coal thoroughly practical and satisfactory today. But, as is the case with oil or gas burners, results obtainable with a mechanical stoker, depend to a very large degree on the heating boiler used with the stoker. If the cleanliness, excellent heating performance and economy now feasible with mechanical stokers, are to be realized, a boiler suited to this particular type of firing is needed. The boiler must provide the conditions which the stoker needs for efficient combustion, and for quick, efficient transfer of the heat released by the burning of the coal. Such a boiler is the Fitzgibbons COAL-EIGHTY AUTOMATIC, illustrated and described on this and the next two pages.

The design and construction of this boiler are based on the findings of an exhaustive survey and study of mechanical stoker requirements. As a result, *the COAL-EIGHTY AUTOMATIC will team up perfectly with any stoker*, and give you an automatic heating unit that is as attractive, as clean and as efficient as an oil or gas heating installation. Its principal features and advantages are given on the next two pages.

Note below the modern basement installation of a Fitzgibbons Coal-Eighty Automatic with a "Bin-feed" type stoker. Hot water is supplied from the tanksaver, no storage tank required.

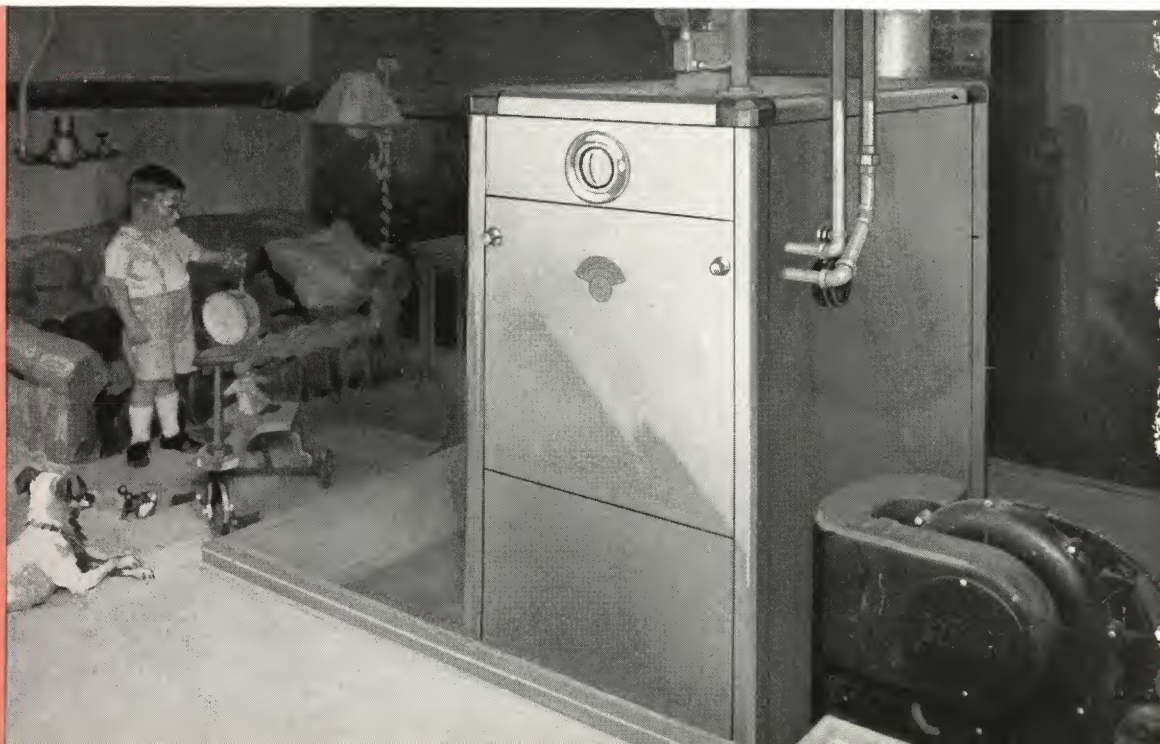


**The  
FITZGIBBONS  
COAL-EIGHTY  
AUTOMATIC**

has been awarded the  
CERTIFICATE OF  
APPROVAL  
of the

**ANTHRACITE  
INSTITUTE**

after exhaustive tests in  
its laboratory at Primos,  
Pennsylvania.

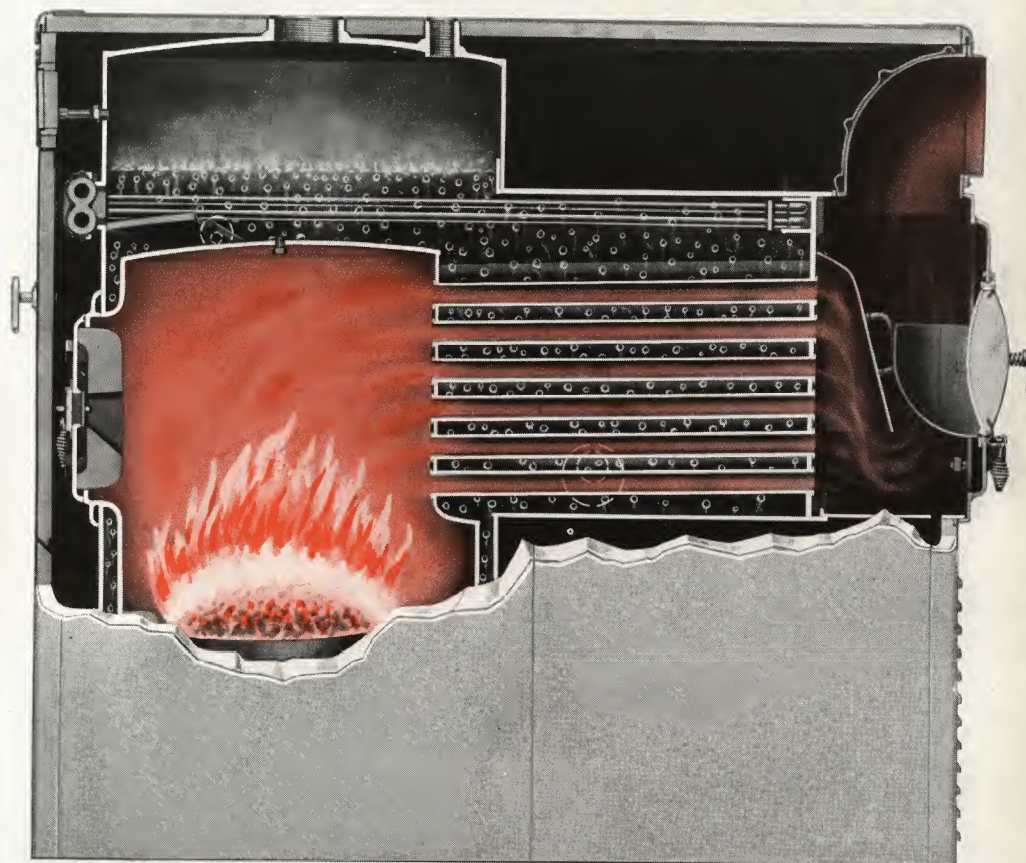




The large number of tubes in the COAL-EIGHTY AUTOMATIC is one of the reasons for the quick, efficient heat transfer for which this boiler is noted.



Cut-away view of the COAL-EIGHTY AUTOMATIC, stoker-fired and equipped for domestic hot water supply with the Fitzgibbons TANKSAVER.



## ALL COPPER-STEEL

Built entirely of copper-steel boiler plate, combining strength and resiliency with life-time crack-proof rust-resisting durability.

## HIGH COMBUSTION CHAMBER

Provides ample room for complete combustion of the gases before they strike the crown sheet, even with long-flame coals. This means smokeless operation and avoids the usual necessity of raising the boiler.

## HIGH EFFICIENCY

Complete combustion and rapid, efficient heat transfer are assured by the general design, and by certain exclusive features which maintain a balanced draft, equalize the flow of gases through the tubes, and pro-

vide an exceptionally positive and powerful water circulation. Quick heat, uniform temperatures, and low fuel bills are the result.

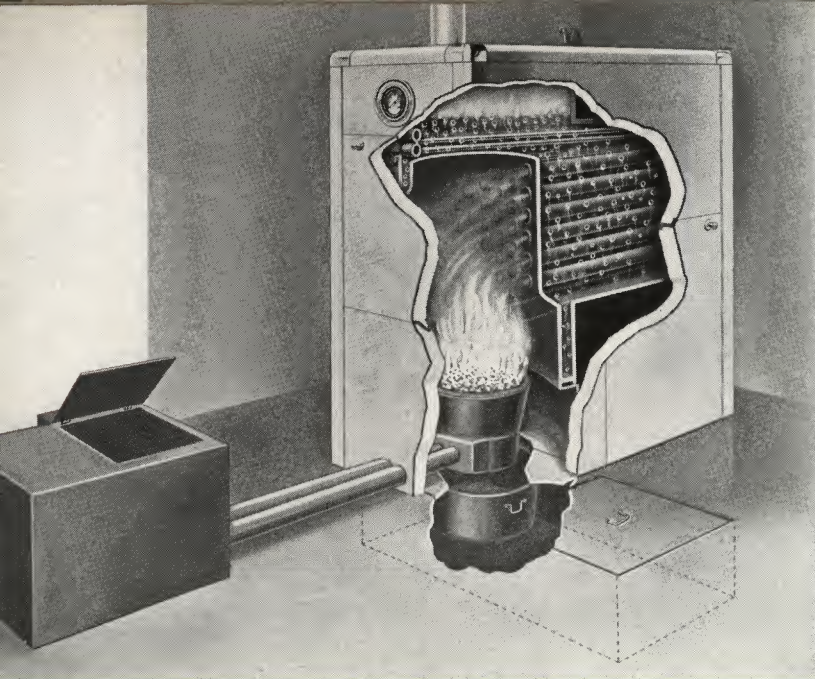
## COMPLETELY ENCLOSED

The thickly insulated steel jacket, extending right down to the floor, prevents the escape of fly ash, and saves heat by keeping it *inside* the boiler, an important advantage when the stoker is operated for summer hot water. Machine-finished and gasket-sealed doors also aid in preventing fly ash and gases from leaking out.

## HOT WATER SUPPLY

On pages 12 and 13 of this bulletin is a description of the Fitzgibbons submerged domestic hot water supply coils available in COAL-EIGHTY AUTOMATIC boilers.



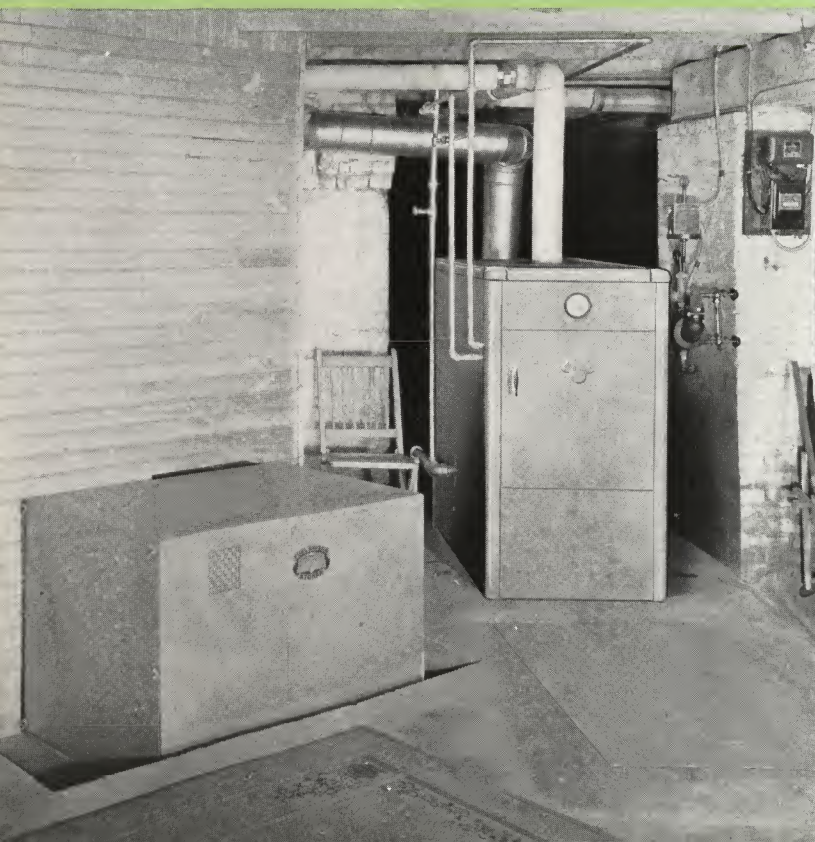


*Here is a typical layout of the modern "bin-fed" type of residence stoker installation for which the COAL-EIGHTY AUTOMATIC is ideally suited. Below is shown an actual installation of this type.*

*In the picture below, note the dust-proof construction of the COAL-EIGHTY AUTOMATIC, its thickly insulated, steel jacket covering all doors and extending clear down to the floor.*

*Note also the absence of a domestic hot water storage tank, the need for which is eliminated by the Fitzgibbons TANKSAVER (See page 12) available with the boiler.*

*The clean, attractive combination of a "bin-fed" type of stoker installation and the COAL-EIGHTY AUTOMATIC makes the dream of an extra basement room a reality for any home in which coal is to be burned automatically.*



## ATTRACTIVE APPEARANCE

The tastefully colored, chromium-trimmed steel jacket adds the touch of beauty so desirable in modern basement plans. Standard locations are provided for aquastats and all other automatic controls.

## EASY TO CLEAN

Because all combustion surfaces, including the straight, unobstructed fire tubes are readily accessible through the large front and rear doors, the boiler can be thoroughly cleaned in a few moments, thus always maintaining the initial high efficiency. Stokers can be installed in the rear or on either side, leaving the front clear for cleaning.

## TWELVE SIZES

This wide range makes it possible to meet the exact heating needs of your particular size home. This means proper heating with maximum economy. If you are going to have automatic coal stoker heat, *it will pay you to see that a COAL-EIGHTY AUTOMATIC Boiler is specified.*

## ADAPTED FOR AIR CONDITIONING

The COAL-EIGHTY AUTOMATIC works equally well in steam, vapor, vacuum or hot water heating systems and is adaptable for service with air conditioning equipment.



★ Built in size to accommodate the larger residence, this member of the renowned line of Fitzgibbons Steel Boilers, is admirably suited for clean, efficient, economical heating. For automatic heating, it will team up perfectly with any mechanical stoker, oil burner, or gas burner of the proper size.

Among its outstanding features is an auxiliary grate, furnished as optional equipment on mechanically fired boilers, which serves as a means for hand firing the boiler should the stoker or burner be temporarily shut down for any reason, and also for refuse disposal. The R-Z-U JUNIOR is characterized by the quick heating speed and highly efficient, fuel-saving performance common to all Fitzgibbons boilers, and is equally easy to clean.

An attractive, heavily insulated, full-length steel jacket is available at option, making the boiler suitable for extra basement rooms, providing maximum cleanliness and preventing heat loss. Also as optional equipment are the domestic hot water supply coils described on the next two pages. Boiler sizes range from 750 to 3,900 square foot steam rating, and all are adaptable to air conditioning.

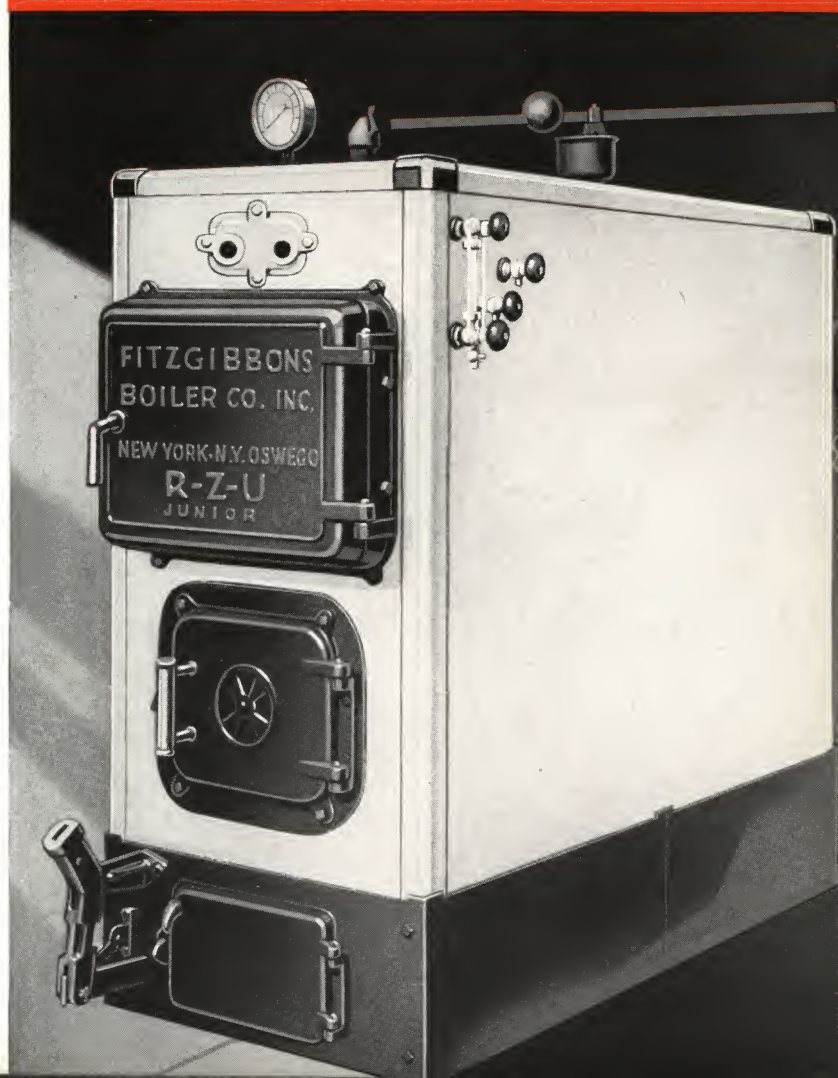
The R-Z-U JUNIOR works equally well in steam, vapor, vacuum or hot water heating systems.

*For further information  
please turn to page 16*

*for coal, oil, gas  
or stoker firing*

## the FITZGIBBONS R-Z-U JUNIOR

FOR THE LARGER RESIDENCE





# THE FITZGIBBONS TANKSAVER

*This is the Fitzgibbons TANKSAVER described below, an exclusive Fitzgibbons development, available only in Fitzgibbons Steel Heating Boilers.*



## THE FITZGIBBONS *Submerged* HOT WATER

## SUPPLY COILS

★ This patented unit, shown above, is available as optional equipment with all Fitzgibbons heating boilers for automatic firing with oil, gas or mechanical coal stoker. It is mounted entirely inside the boiler, with provision for easy external connection to the water system.

Located just below the water line where the boiler water is hottest, the Fitzgibbons TANKSAVER provides, at low cost, a supply of clean hot water for laundry, kitchen and bath, *without a storage tank*.

The Fitzgibbons TANKSAVER is made in a range of sizes which deliver from 150 to 760 gallons rate of

flow per hour, with the boiler water at 212° F. and a city water pressure of 30 pounds. The capacities which are available with any particular boiler depend on the size of the boiler.

Fitzgibbons engineers will be glad to cooperate in selecting the right size of TANKSAVER to supply the volume of hot water that meets your requirements. *The TANKSAVER is available only with Fitzgibbons boilers.*

You can readily appreciate how much more you can do with your basement where you require *only the one unit* to take care of both heating and hot water—an attractive Fitzgibbons life-time steel boiler with its self-contained submerged TANKSAVER.

With Fitzgibbons boilers for hand firing, and where automatic control of domestic hot water supply is not possible, the Fitzgibbons Tankheater is available at option.

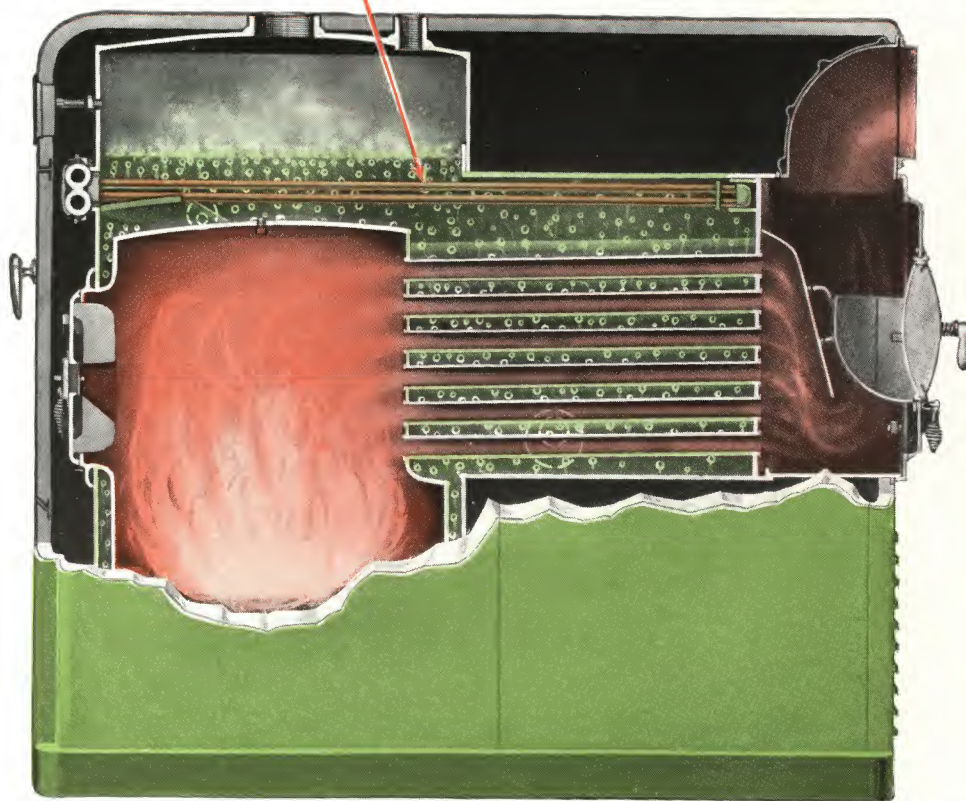
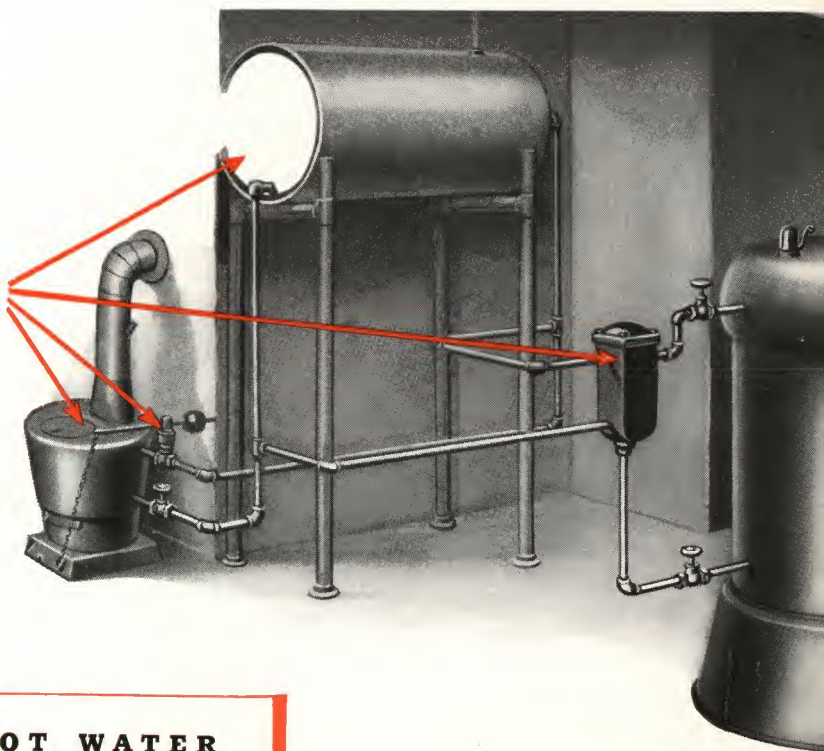


With any  
Fitzgibbons Boiler  
for automatic  
heating

**THESE**  
are all  
replaced  
with

**THIS**

SUBMERGED COPPER HOT WATER  
COIL LOCATED INSIDE THE BOILER  
... THE FITZGIBBONS TANKSAVER



This picture shows the TANKSAVER mounted in place in a Fitzgibbons OIL-EIGHTY equipped with an oil burner. It is located in the same position, just below the water line, in boilers for gas or stoker firing. When ordered, it comes assembled in the boiler. The Fitzgibbons TANKSAVER is made of copper and will not rust. Therefore the water that comes out of it is clean and pure.

Owners of Fitzgibbons boilers, everywhere, agree that the abundant supply of clean hot water they get from the *invisible* TANKSAVER, is a source of great satisfaction and comfort.



*the Fitzgibbons*

## BOILER★AIR CONDITIONER

★ Here is a unit that has completely changed the air conditioning situation with respect to homes. Now, even if you are building a small or medium size home, you can enjoy the benefits and advantages of modern air conditioning at a cost that you will find surprisingly reasonable.

The Fitzgibbons BOILER-AIR CONDITIONER has made this possible, by combining in a *single, compact unit*, which takes up no more room than an ordinary heating boiler alone, the three vital home services of (1) Air Conditioning; (2) Steel Boiler Heat; (3) Domestic Hot Water Supply.

Here are the details of each service as supplied by this single unit.



### THE FITZGIBBONSAIRE

in conjunction with Fitzgibbons Steel Boilers for automatic firing makes it possible for the larger residences to enjoy all the benefits of healthful economical "Split-System" boiler-air conditioning.

The combination of FITZGIBBONSAIRE and boiler provides the same three services that are supplied by the Fitzgibbons BOILER-AIR CONDITIONER, namely: (1) Air conditioning; (2) Steel Boiler-Radiator Heat; (3) Year-'Round Domestic Hot Water.

*For further information please turn to the next page*

A TRIM COMPACT GOOD LOOKING UNIT  
EQUIPPED WITH THE TANKSAVER





## AVAILABLE FOR ANY SIZE HOME!

*combining* AIR CONDITIONING ★ HOT WATER AND HEAT!

### BASEMENT UTILITY AND BEAUTY

As the illustration shows, the Fitzgibbons BOILER-AIR CONDITIONER is not only a remarkable space saver, but a pleasingly attractive unit as well—one that presents entirely new and broader possibilities for the design and arrangement of the basement. It makes practicable the extra basement room, even in the small house.

It will pay you to give this unit your careful consideration. Not only will it make your home a comfortable and more healthful place in which to live, but by thoroughly cleaning the air, it will also reduce cleaning labor and laundry bills. It will also add considerably to the value of your house.



### SPLIT SYSTEM AIR CONDITIONING

This BOILER-AIR CONDITIONING *cleans* the air, *tempers* it, *humidifies* it, and forces the circulation of this thoroughly conditioned, healthful and comfort-giving air to every room you desire. It is ideal for the popular and economical "split system" type of installation—the combination of air conditioning in selected rooms, and boiler-radiator heat elsewhere. It will, if you desire, provide air conditioning in every room.

It gives you quiet operation. It is entirely sound-proofed. Moving parts are mounted on special bearings which absorb all vibration. Air ducts do not communicate directly with the combustion chamber, hence they cannot act as "speaking tubes" for even faint sounds of operation.



### STEEL BOILER HEAT

The Fitzgibbons Boiler-Air Conditioner works *with any good oil burner*. This means that the burner you may find it advantageous to select, will be at home in this unit—where it may be concealed behind easily removable panels in the jacket, safe from dust, careless feet, or prying fingers. The BOILER-AIR CONDITIONER works equally well *with any domestic coal stoker*, or *with any gas burner*. It is built in types specially designed for these fuels, thus for the first time applying to air conditioning, the advances recently made in these methods of firing. Like the separate Fitzgibbons boilers it is built of strong, durable, rust-resisting copper-steel, good for a lifetime of trouble-free service.



### HOT WATER SUPPLY

Every BOILER-AIR CONDITIONER is equipped with the Fitzgibbons TANKSAVER, described on the preceding two pages, which provides abundant, clean hot water year 'round at low cost—eliminating the need for a storage tank or other external hot water apparatus.





# HOW TO GET *complete* INFORMATION

Your Architect, Builder or Heating Contractor undoubtedly knows about the Fitzgibbons Steel Boilers and Boiler-Air Conditioners illustrated and described on the preceding pages, and may have in file our catalogs which give complete details including capacities and dimensions. If not, full details will be gladly furnished by the nearest of the Fitzgibbons branches and representatives listed below. If none of these offices are near your home, write to our General Office in New York City and we will see to it that full information is promptly supplied.

## FREE ADVISORY COOPERATION

Our representatives are all thoroughly trained and experienced in all matters pertaining to heating, domestic hot water and air conditioning. Without obligation, they will gladly consult with your Architect, Builder or Heating

Contractor, and render every assistance in planning your heating, hot water and air conditioning, and in selecting the proper units to meet and satisfy the requirements of your home.

We will be glad, of course, to answer any question about heating, hot water or air conditioning that you may wish to address to us direct. There is no obligation, so please do not hesitate to write.

## BUY THROUGH YOUR LOCAL DEALER

Fitzgibbons Steel Boilers and Boiler-Air Conditioners are sold only through recognized Dealers and Heating Contractors, many of whom have them on display. It is to your advantage to buy through your local dealer, or contractor, who will then be available to service your equipment. If you wish, we will be pleased to give you upon request, the name and address of a reliable dealer located near you.

## ***Fitzgibbons Boiler Company, Inc.***

★GENERAL OFFICE: ARCHITECTS BUILDING, 101 PARK AVE., NEW YORK CITY

### GREATER NEW YORK

★101 Park Ave., New York City  
Phone: Ashland 4-3802

### QUEENS COUNTY

P. O. Box 4, St. Albans, L. I., N. Y.  
Phone: Laurelton 8-3131

### NASSAU COUNTY and BEYOND

P. O. Box 146, Floral Park, L. I., N. Y.  
Phone: Floral Park 2764

### WESTCHESTER COUNTY

★White Plains, N. Y., 185 Main St.  
Phone: White Plains 9032

### NORTHERN NEW JERSEY

West Englewood, N. J., 1300 Longfellow Ave.  
Phone: TEaneck 7-2467  
Plainfield, N. J., 941 West Front St.  
Phone: Plainfield 6-8826  
Verona, N. J., 35 South Prospect St.  
Phone: Verona 8-1459

### SYRACUSE, ROCHESTER, ELMIRA,

BINGHAMTON and Vicinities  
Syracuse, N. Y., 220 Hickok Ave.  
Phone: Syracuse 3-2545

### WESTERN NEW YORK

NORTH WESTERN PENNSYLVANIA  
Buffalo, N. Y., Curtis Building  
Phone: Cleveland 4787

### CONNECTICUT (except Fairfield County)

Hartford, Conn., P. O. Box 1742  
Phone: Hartford 5-4640

### FAIRFIELD COUNTY, CONNECTICUT

Stamford, Conn., 30 Park Row  
Phone: Stamford 3-7098

### ALBANY and Vicinity

SOUTHERN VERMONT  
WESTERN MASSACHUSETTS  
Albany, N. Y., 524 Kenwood Ave.  
Phone: Delmar 9430

### EASTERN MASSACHUSETTS, VERMONT, MAINE

★Cambridge, Mass., 31 Main St.  
Phone: Kirkland 4427  
Brookton, Mass., 75 Syracuse Ave.  
Phone: call Cambridge Office

### CENTRAL MASSACHUSETTS.

NEW HAMPSHIRE  
Worcester, Mass., 21 Stoneland Road  
Phone: Worcester 3-1275

### RHODE ISLAND

★Providence, R. I., 13 Market Square  
Phone: Dexter 3344

### PENNSYLVANIA

★Philadelphia, Pa., 1215 Land Title Bldg.  
Phone: Rittenhouse 3983  
Scranton, Pa., 219 Miller Bldg.  
Phone: Scranton 4-5377  
Harrisburg, Pa., P. O. Box 609  
Phone: Harrisburg 2-5428  
Wilkes-Barre, Pa., P. O. Box 224  
Phone: Kingston 7-2713

### MARYLAND

Baltimore, Md., 2834 Ellicott Driveway  
Phone: Madison 1767

### WASHINGTON, D. C.

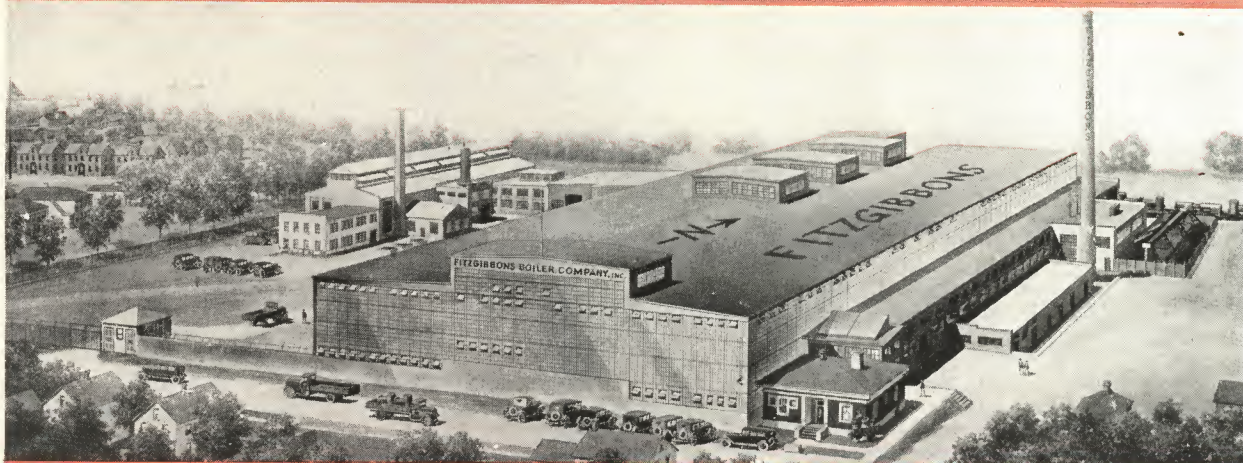
★Room 704, Chandler Bldg.  
Phone: National 3295

### VIRGINIA

Richmond, Va., 7 North 6th St.  
Phone: Richmond 2-3965

★FITZGIBBONS STEEL BOILERS and BOILER-AIR CONDITIONERS are on display at these addresses, and in the showrooms of leading dealers.

BRANCHES AND REPRESENTATIVES IN OTHER PRINCIPAL CITIES THROUGHOUT THE UNITED STATES



The FITZGIBBONS factory, Oswego, N. Y., where the experience, the refinements and the perfection of 50 years of steel boiler manufacturing go into FITZGIBBONS BOILERS and BOILER-AIR CONDITIONERS.





*Build with Arrow Brand*



**TIDEWATER  
RED CYPRESS**

**FOR BEAUTY, ECONOMY,  
AND LIFETIME DURABILITY**

**FLORIDA LOUISIANA RED CYPRESS CO.**  
• • • JACKSONVILLE, FLORIDA • • •



# HIGHLIGHTS IN THE ROMANTIC HISTORY OF TIDEWATER RED CYPRESS

*. . . . to serve you as a guide*

**T**HE Cypress tree is of very ancient lineage. Before the Ice Age it grew only on hills, but as the climate changed through the ages the Cypress tree retreated into the warm swamplands to the southward. Through centuries of adaptation to its environment and an age-long battle with the ever-changing agencies of nature, Cypress developed an inherent degree of resistance to destructive forces not found in most other woods.

In ancient days Cypress was used for building mummy cases and images of the Gods. The Cypress sarcophagi when taken from the tombs of the Egyptian Pharaohs, after being buried more than 3,000 years, were still in an excellent state of preservation. The statue of Jupiter, carved out of Cypress, is stated by Pliny to have existed 600 years without showing signs of deterioration. The Cypress doors of St. Peter's in Rome, when moved by Eugenius IV were still sound although they had served for 1100 years.

In relatively modern times an outstanding example of the lasting quality of Cypress is Mount Vernon, home of George Washington. Some of the heart Cypress shingles laid on the roof of this famous structure in 1743 were still giving service in 1918—175 years later. Within the past two centuries hundreds of historic American homes, constructed entirely of Cypress by their foresighted owners, have withstood the ravages of Time and the Elements down through generation after generation.

History then provides an authentic background for Tidewater Red Cypress and substantiates conclusively its right to the title of "The Wood Eternal."

Today the most universally used building material is wood. It is unquestionably the more adaptable and more economical material for home construction. Of the various species of wood commercially available in quantity, Tidewater Red Cypress, because of its beauty, versatility and its resistance to the deteriorating effects of moisture, humidity, contact with soil, termite, and decay causing fungi, offers most for your building dollar.

**FLORIDA LOUISIANA RED CYPRESS CO.**  
**JACKSONVILLE, FLORIDA**



# *Before you build* • **CONSIDER THE MANY ADVANTAGES TIDEWATER RED CYPRESS OFFERS**

## **DURABILITY ON THE OUTSIDE**

• The material you select for the exterior of your home should insure permanent weather-tight protection. For uncompromising durability despite every disintegrating influence of Nature, Tidewater Red Cypress has no equal.

## **BEAUTY ON THE INSIDE**

• Today Cypress is recognized also as the ideal material for beautiful interior decoration. Its exquisitely figured grain offers unlimited possibilities for trim, paneling, marquetry and colorful interior finishes.

## **VERSATILITY**

• Cypress is an all-purpose lumber and can be efficiently and economically employed for practically every portion of the home or out-building. Wherever it is proper to use wood, there is an advantage in using Cypress.

## **LOW UPKEEP EXPENSE**

• Because of its unparalleled endurance under all conditions of exposure, Arrow Brand Cypress definitely eliminates periodical repair and upkeep expenditures. When you build properly of this Cypress your initial investment is thoroughly sound and, generally over long periods of time, is your final cost.

## **LIFE-TIME SERVICE**

• There exists today throughout the South Colonial homes which are housing comfortably the fifth and sixth generations of the original builders. These homes were built entirely of Cypress, some more than 200 years ago. Today this same Genuine Tidewater Red Cypress is available to you. Whether you plan to remodel or rebuild, specify this durable wood with the assurance of economical lifetime service.



## **AS THE OWNERS DESIRED IT**

• The owners of this Long Island home found Cypress ideally adapted to their own personal ideas on exterior beauty and durability, and distinctive interior decoration.

## **THE OLDEST LIVING THING**

• In the churchyard at Santa Maria del Tule, Mexico, stands this hardy Cypress tree estimated by Dr. Herman Van Schrenck, timber expert, to be over 5,000 years of age. It is the oldest living thing on earth.



DWIGHT JAMES BAUM

ARCHITECT

*Always specify* **ARROW BRAND TIDEWATER RED CYPRESS**



# HOMES OF CYPRESS ARE HOMES OF *Beauty*



HENRY C. PELTON

ARCHITECT

● In Montclair, New Jersey, this modest home exhibits the weather-tight combination of Cypress siding and Cypress shingle roof. Whether for large or small home, Cypress and economy go hand in hand.



● Of early American architecture, this hillside home in Bronxville, New York, shows a generous use of Cypress. With roof and sidewalls of Cypress shingles and all other exposed portions of heart Cypress, here is a home exterior designed to last for generations without the need for replacement.

● Desiring something different in a durable exterior, the owners of this home in Greenwich, Connecticut, used hand-rived heart cypress shingles for both roof and sidewall. Aside from the very artistic effect they produce it would not be surprising to find these same shingles giving efficient service 100 years hence.



ARTHUR T. REMICK

ARCHITECT

● Living within a few hundred miles of many of the great tidal swamps where Arrow Brand Tidewater Red Cypress originates, the owners of this charming Jacksonville, Florida, home used it exclusively for all exterior woodwork. In addition to the siding, the door and window frames, porch columns and trim are all heart Cypress.



ARTHUR T. REMICK

ARCHITECT





● This delightful home in Jacksonville, Florida, is still in its early youth. As the years pass its beauty and charm will remain intact because it is built almost entirely of Cypress.

● A far cry from Florida's mild climate is this typical Long Island home. Despite the rigors of northern winters, it, too, will age gracefully with its heart Cypress exterior continuously giving weather-tight protection.



W. KENYON DRAKE

ARCHITECT



AYMAR EMBURY, II

ARCHITECT

## HOMES OF CYPRESS GROW OLD

*Gracefully*

### A PERMANENT TRIBUTE TO THE OWNER'S GOOD JUDGMENT

**H**OME builders, who of their own volition or upon the advice of an architect, plan and build their homes of Tidewater Red Cypress erect a permanent tribute to their good judgment. Regardless of the locality in which you live, whether north, south, east, west, seaboard or inland, you can build with Cypress with the definite assurance that the durability of this wood is unaffected by varying climatic conditions.

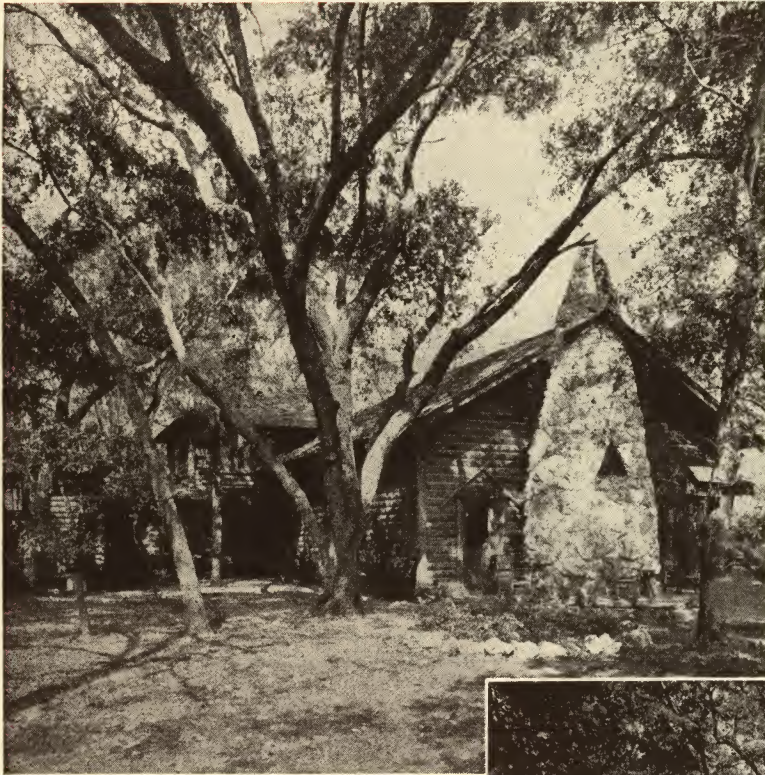
Cypress should not be thought of merely as a lumber for the more elaborate or expensive home. Actually, over long periods of time, Tidewater Red Cypress is the most economical lumber you can buy for any type of home or outbuilding. The use of Cypress is safe and cheap insurance against the premature and serious depreciation of your entire investment. Though the original cost of Cypress may be a trifle more, it is offset many times over through the elimination of early and frequent repairs and replacements. Irrespective of the nature or size of the structure, the substitution of inferior materials to reduce your initial expenditure is false economy.

When you build or remodel specify Arrow Brand Tidewater Red Cypress. Specify it not only for the exterior portion of your home, but for the interior woodwork as well.

**WHETHER FOR MODEST SURROUNDINGS OR LARGE ESTATE,  
HOMES OF CYPRESS ARE A WISE, *Money - Saving Investment***







SAM STOLTZ

DESIGNER AND BUILDER

● With its background of verdant foliage, this residence in Winnetka, Illinois, fits snugly into its forest-like frame, its Cypress exterior in full accord with the environs. Despite the overhanging trees and close proximity of abundant plant life, both productive of fungus growth, the roof and sidewalls of this home will remain weather-tight indefinitely.

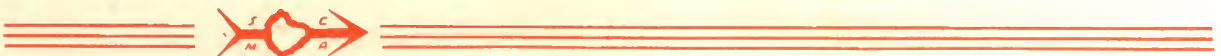


HUSZAPH AND HILL

ARCHITECTS

## HOMES OF CYPRESS *Blend* WITH NATURE

**C**YPRESS bestows upon your home an enduring beauty that harmonizes perfectly with trees, shrubbery and lawn. No matter how elaborately landscaped, or how simple and rustic the surroundings may be, a home of cypress lends that subtle air of rightness for which every home-owner strives. Its warmth—to the eye and to the touch—which the passing years do not destroy, but rather add a mellowness, makes a home of Cypress and its setting a harmonious whole. Truly, Cypress blends with Nature.





## CONSIDER THE UNEQUALLED VERSATILITY OF CYPRESS

**N**O wood can compare with Tidewater Red Cypress for its all-around efficiency as all-purpose lumber. Its unparalleled durability makes it the preferred wood for exterior use. Beauty of grain, even texture, and paintability establish it as outstanding for interior finish and trim. Tough, rugged, decay-defying when it needs to be, yet possessing characteristics which demand its use for soft, artistic, decorative effects as well. There is no place where it is suitable to use wood that Cypress cannot serve better, longer and more economically.

● The living room of this California home shows the interesting combination of smooth Cypress wall panels with a beamed ceiling of Pecky Cypress.

● The panel below gives some idea of the interesting possibilities the beautifully designed grain of Cypress affords. Richly shaded grain patterns of infinite variety lend themselves readily to any desired treatment.



**T**HE effects which may be produced with Cypress are almost unlimited. Left natural it weathers to a beautiful silver gray. When stained, varnished or waxed, the exquisite beauty of its variegated grain is emphasized. It can be effectively tinted any desired color or shade. Through the use of the Japanese treatment known as "sugi" (charred by a blow torch and then rubbed) the historic and very artistic "driftwood" effect can be reproduced on Cypress with remarkable accuracy. Architects have found that this wood lends itself admirably to the production of many other unique finishes. Pecky Cypress is particularly adapted to the creation of antique effects.



## PERMITTING FULL EXPRESSION OF YOUR INDIVIDUAL TASTES

**N**O matter what effect you desire in a room you can obtain it with Cypress. Here is a wood which harmonizes with any scheme of decoration and which is adaptable to your own particular ideas. Gorgeously marked by nature, it has an individuality of grain design and coloring impossible to duplicate with any other wood. Cypress makes possible the creation of new modes in room treatment and permits full sway of your own personal ideas.



● "Chop your own wood and it will warm you twice," is the inscription which appears on the face of the Cypress mantel of Henry Ford's Trophy Room. This interesting mantel and the rugged Pecky Cypress half-timber work are in full keeping with the rough stone fireplace of which they form a part.

● In contrast, note the soft, cool effect obtained by the use of Cypress paneling in the dining room of this Florida home. Here simplicity rules and an effect of tranquil beauty has been achieved.



MELLEN C. GREELEY

ARCHITECT



GEORGE B. ROGERS

ARCHITECT

● An atmosphere, both pleasing and individual, has been given to this lumber company office in Irvington, New York, through the use of smooth Cypress boards of varying widths and grain patterns, marked off into panels with moulding.

● How cheerful is the corner of this breakfast room in a Spring Hill, Alabama residence. All of the woodwork, including floor and ceiling is of Tidewater Red Cypress.





## PECKY CYPRESS FOR

*Antique* EFFECTS

**P**ECKY CYPRESS, because of its "honeycombed" surface, has a natural "aged" appearance and striking antique effects can be obtained with this extraordinary wood. For individuality in interior decoration, no other material offers as many possibilities. Especially suited for half-timber work, paneling and trim, unique and delightful finishes of smart distinction and unequalled charm can be created.



● This modern bar in a Cleveland, Ohio home, gives some idea of the effects which can be created with Pecky Cypress. Note the rough-hewn Pecky columns and beams and the finished "Pecky" wall and bar front panels. Surely here is charming individuality.

● The walls of this pleasant living room in Palm Beach, Florida, are of natural Pecky Cypress, whitewashed and marked off into panels with moulding. With this treatment an atmosphere of early Colonial days is given to this modern interior.



HOWARD MAJOR

ARCHITECT



DAVIS AND LEWIS

ARCHITECTS

● There is a nautical feeling to the foyer in this Scranton, Pennsylvania residence. One can almost visualize the wide Pecky Cypress wall panels as having been eroded by the action of the sea in some age-old sunken vessel.





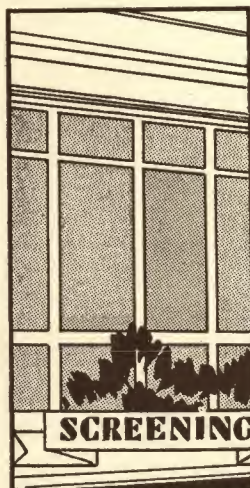
# GUARD *the* WEATHERPOINTS with CYPRESS

HERE ARE SHOWN THE VITAL SPOTS IN YOUR HOME... INSURE THEM AGAINST DECAY AND WEATHER WEAR BY BUILDING THEM OF ARROW BRAND TIDEWATER RED CYPRESS



**COLUMNS**

● Screen frames of Cypress are unaffected by alternate wetting and drying from rain and sun.



**SCREENING**

● Heart Cypress columns resist termite attack and the decaying influence of moisture from rain or snow.

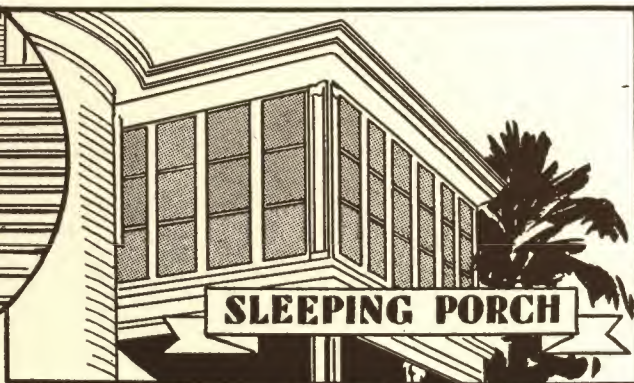


**STEPPING**

● Contact with damp soil and growing plants does not rot out Cypress posts and stepping. Sills and floor joists should also always be of heart Cypress.

**T**HE exterior of your home is the guardian to your whole investment, for your home will endure only so long as its exterior withstands the constant exposure to the deteriorating effects of Time and the Elements.

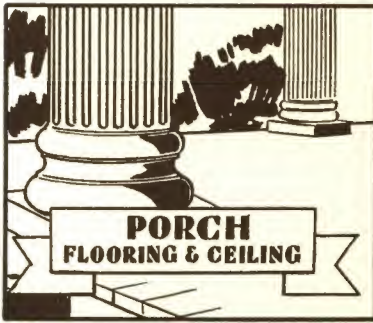
Each one of the places shown here is subject to depreciation from the effects of either sun, rain, moisture, termite or fungus growth of some description. Repairs to sills, floor joists, and the replacement of siding, columns, door and window frames and roof coverings are costly. Build these vital points of heart Cypress with the knowledge that you have not only given your home life-long protection against decay and premature weathering, but have saved countless dollars in eliminated repair and replacement.



**SLEEPING PORCH**



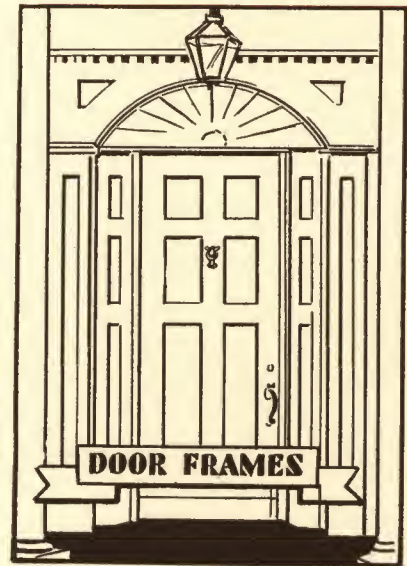




● Porch floors of Cypress withstand the extreme surface wear and eliminate the double danger of decay from moisture collecting on the surface and dampness developing from underneath.



● Built of heart Cypress, door frames last indefinitely despite constant exposure to varying atmospheric conditions and temperatures from inside and out.



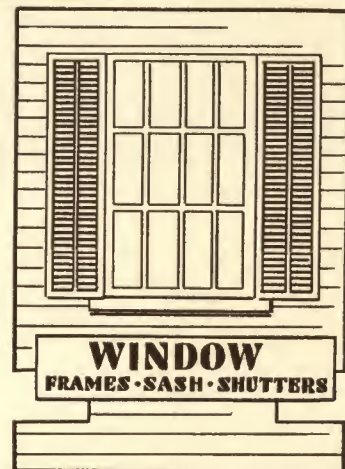
Tidewater Red Cypress, Heart Grade, defies decay, is unaffected by contact with damp soil or growing plants, and resists the attacks of termite and other wood-boring insects. It costs but very little more to use this Cypress and the few extra dollars invested initially will be more than offset by a lifetime service free of upkeep expense. For long-run economy in home construction, no other wood can compare with Cypress.

A home of Cypress grows old gracefully, its appearance and soundness will be inexpensively preserved through generations of service. When you build or remodel, specify Arrow Brand Tidewater Red Cypress, Heart Grade, for every exposed point where wood meets weather.



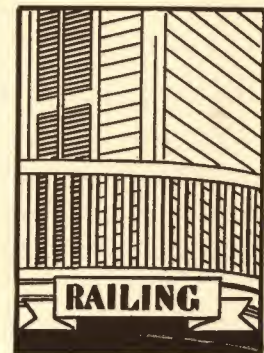
● Exposed to every weather change window frames, sash and shutters should always be of Cypress. Repairs to frames and sash are always expensive. Permanently avoid the need for this expense by making them of heart Cypress.

● Water seepage from roof and eaves caused by rain or snow does not affect the durability of Cypress cornice and trim. The use of Cypress at these vital points is true economy.



● Porch railings of Heart Cypress never rot out.

● The roof and sidewalls of your home are its most important parts. To be assured of permanent weather-tight protection build them of Heart Grade Arrow Brand Tidewater Red Cypress.





## CYPRESS ASSURES A HOME OF LIFETIME DURABILITY THE RAVAGES OF TIME AND THE ELEMENTS ARE HELPLESS AGAINST "The Wood Eternal"

● In 1770, an eccentric lady in Charleston, South Carolina, willed that the headboard of her bed should be used as her grave marker. Her judgment has been justified for the inscription on the Cypress board remained legible long after neighboring stone inscriptions had been effaced.



● The oldest frame house in the oldest American settlement. Built in St. Augustine, Florida, more than 250 years ago, the original Cypress, unpainted, is weather-tight today. Even without the protection of paint, the heartwood of Cypress defeats weather at every turn.

● Built by slaves before the Revolution, the old Osborn House in Charleston, South Carolina, gives indisputable evidence of the remarkable durability of Cypress. Inside and out, every piece of woodwork in this unique structure is of Cypress which is still in excellent condition after 200 years.



**M**OST of the famous and beautiful ante-bellum mansions and homes in the South and other sections of the country were constructed entirely of Cypress—from foundation to roof. In those early days homes were built to endure, not only for the present generation, but for the generations to come. There are homes in Louisiana built of Cypress more than a century ago, which are still comfortably sheltering descendants of the original builders.

With such an authentic background to confirm its uncompromising durability, present-day home builders can, with utmost confidence, depend upon Tidewater Red Cypress for lifetime service free of replacement expense.





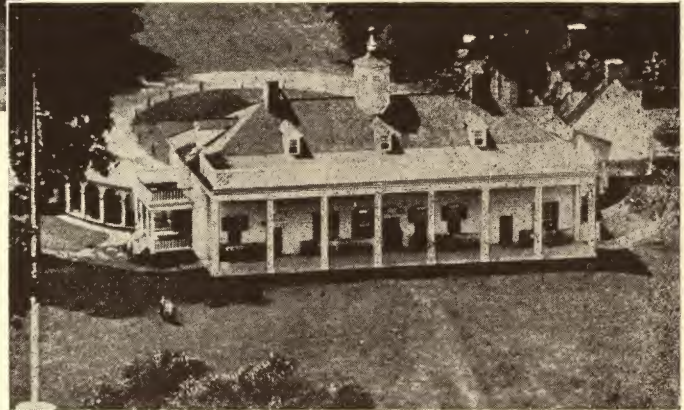
● Built before 1800, this beautiful old Colonial mansion is still in a remarkable state of preservation, and stands as eloquent testimony to the enduring qualities of Tidewater Red Cypress.



● Constructed of Tidewater Red Cypress in the early 1800's, this famous southern landmark near New Iberia, Louisiana, is still in good condition today.



● George Washington wrote, "Nothing but durable materials shall be used in this house." As evidence of his sound judgment, some of the heart Cypress shingles laid in 1743 were still giving service on Mount Vernon in 1918—175 years later. For nearly 200 years, the roof of this historic home has been continuously of Cypress.



## AMERICA IS STILL TOO YOUNG TO KNOW HOW LONG CYPRESS CAN ENDURE

**T**HE finger of age has lightly touched these fine old homes and left only a mellow trace of charm. For age brings only charm to Cypress. Wherever man has built properly of this wood, Time and Nature seem only to have enhanced the fairness of his efforts. Many homes built both beautifully and strongly in Colonial days are still standing and offer convincing testimony to the inflexible enduring qualities of this wood. These homes and the New Country, born together, are both still too young to know how long this wood can endure.

The same Cypress of which these early American homes were constructed is available to present-day home builders. Arrow Brand Tidewater Red Cypress, logged from tidal swamplands, leisurely and thoroughly air-seasoned to assure freedom from the dimension change when in service, and carefully and precisely manufactured, is the same Cypress our forefathers used in building these more-than-century-old homes. Truly, this Cypress is "The Wood Eternal" and certainly, the maximum value in lumber today.





## **FREEDOM FROM UPKEEP AND REPAIR BILLS**

### **ONE of the most SATISFYING FEATURES of CYPRESS**

**W**HAT a wonderful sensation it is to see your own home rise up in all its newness. But how discouraging when, after a few short years, you find you are forced to make replacements. A leaky roof, a rotted cornice, a sagging porch pillar, or a decayed window sill can easily cause a repair bill that runs into hundreds of dollars. How easy it is for rain to beat in at defective points and ruin walls, decorations and furniture. How difficult, inconvenient and expensive repairs can be after the house is completed.

Nothing is more distasteful than writing checks for repair bills that never should have been necessary. When you build properly with Tidewater Red Cypress your first cost is your last cost. Here is lumber that will never make further demand on your checkbook. Lumber that gives lifetime insurance against weather damage and assures freedom from repair bills. When you build or remodel use Arrow Brand Tidewater Cypress, selecting the correct grade for the purpose intended. For all exposed woodwork always specify heart grade Cypress.

### **TERMITE RESISTANT**

**T**HE Bureau of Entomology, United States Department of Agriculture, states that no wood has yet been discovered that is absolutely immune to the attack of termites. This Bureau, however, pronounces the heartwood of Tidewater Red Cypress as one of the best termite resistant woods grown in the United States. Science has not yet been able to determine with accuracy the reason for this valuable property of Cypress. One solution has been offered by the presence of a resin-like substance, "Cypressene," which is contained in the heartwood of the tree, and is believed to act as a natural preservative against the attacks of insects and decay.

Architects, builders and home owners should remember this very definite asset Tidewater Red Cypress possesses—its heartwood offers positive resistance to the attack of termites and other wood-destroying insects.

### **CYPRESS TAKES AND HOLDS PAINT WELL**

**E**XTENSIVE experiments by Government Departments and by independent paint experts show conclusively that Cypress lends itself excellently to painting. No special kinds of paint, no unusual proportioning of paint ingredients and, in fact, no departures from approved paint processes are required. In the 10-year test conducted by the U. S. Forest Products Laboratory to ascertain the relative paintability of various woods, Tidewater Red Cypress proved to be one of the best in its ability to take and hold paint.

The natural elements in Cypress make a perfect bond between this wood and paint. Because of the exacting manufacture and the long seasoning process which Arrow Brand Tidewater Red Cypress undergoes before it is put on the market, a velvet smooth finish coat will result when this lumber is painted.





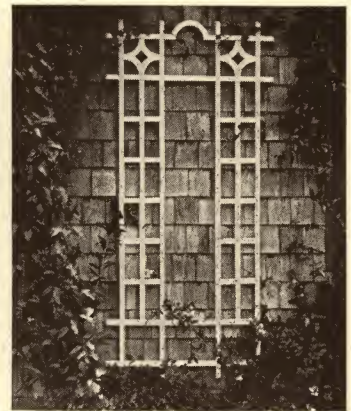
# Beautify THE HOME SURROUNDINGS

## WITH ATTRACTIVE ITEMS OF CYPRESS FOR LAWN AND GARDEN

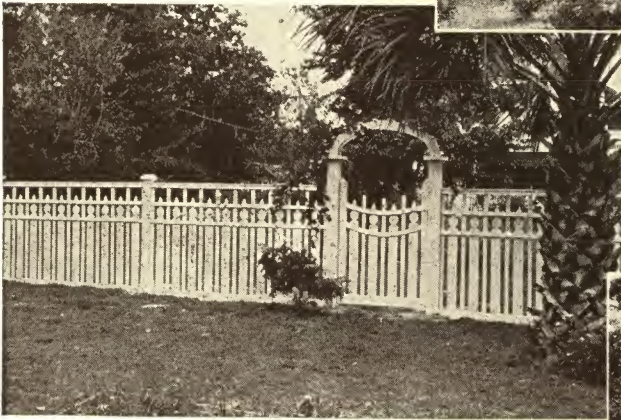
**N**O matter what size or type of lawn or garden you may have there is always need for such decorative and useful pieces as lawn furniture, pergolas, arbors, trellises and fences. When they are attractively designed and built of the proper wood they are a definite asset in improving the appearance of the home surroundings. Naturally, such items because they are constantly in contact with damp soil and growing plants, and continuously exposed to the weather and termite attack, should be constructed of Tidewater Red Cypress.

There is a place in every American home for these garden accessories, perhaps just a seat beneath a shady tree, a trellis for vines near the porch, or lattice to screen some undesirable view. A terrace or porch may be made into an outdoor living room through the use of lawn chairs, tables and benches. As practical as they are artistic and durable when built of Tidewater Red Cypress, they make the outside of your home just as livable as the interior.

• This Cypress arbor with seats in the garden of a home overlooking the St. Johns River near Palatka, Florida, furnishes its owner with a restful place of cool, quiet seclusion.



• Inexpensive, the use of Cypress trellis simplifies the training of vines along side-walls and porches.



• Though constantly in contact with soil and exposed to termite attack, this ornamental fence of Cypress gives beauty and permanent protection to the garden of a Florida home.

• This handsome pergola of graceful proportions with the accompanying lawn furniture would be a worthy adornment to the most elaborately landscaped garden. Built entirely of heart Cypress, the need for expensive repairs will never come despite the exposure to sun, rain, heat, cold and termite.





## THE LOGICAL CHOICE FOR GARAGES AND ALL OUT-BUILDINGS

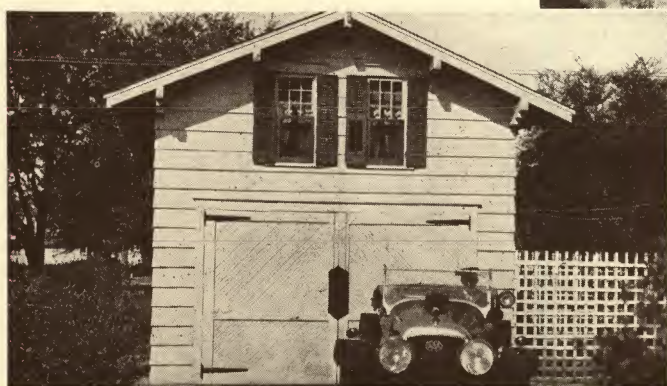
TO HELP them in their FIGHT AGAINST the ELEMENTS

**E**VERY home, whether on a farm, in a small town, or a big city, has need for out-buildings. These buildings should be just as attractive and just as durable as your house. Garages and similar structures play a big part in making your residence the beautiful place you want it to be. Most of these structures have relatively more exposed surface than the average house, and the need for protection against decay and expensive repair bills and replacements is as great, if not greater. Repairs on your out-buildings can be just as expensive as repairs on your house. For beauty and low upkeep, then, use Arrow Brand Tidewater Red Cypress in its proper grade for every building on your property.



● Garage, chauffeur's quarters, and stables on a Westchester County, New York, estate. Despite many decaying influences, this building, constructed almost entirely of Cypress, will lose none of its soundness as the years pass.

● This cottage with its charming all-Cypress exterior concedes nothing in the way of beauty or durability to its larger and more pretentious neighbors. Rived Cypress shingles were used on roof and sidewalls to furnish an effect of charming simplicity.



● This combined garage and chauffeur's apartment in Jacksonville, Florida, is in keeping with the attractive home it serves, for in this simple out-building, the owner has duplicated, somewhat, the general architectural style of his home. The wide heart Cypress doors will never rot out and sag.





# CYPRESS IS A REAL *Money-Saver* ON THE FARM

**T**HE heartwood of Tidewater Red Cypress has proven its ability to serve faithfully and long against two of the most destructive agencies known to wood—decay and termite attack. On the farm, where a high degree of resistance to these influences is essential, Cypress is the most economical lumber you can use. It stops depreciation at the source. Although Cypress is light in weight, soft in texture and easily worked with the simple tools usually found on the farm, it has definite rigidity and nail-holding power. As a general farm utility lumber, Cypress takes and holds paint well, but can be left unpainted indefinitely without its durability being affected.

For dairy houses Cypress offers a two-fold advantage. In addition to its enduring qualities, this wood, because it is chemically inert, will impart no color, odor or taste to the milk, cream or butterfats. Containers in your dairy, such as butter churns, tubs, etc., should, of course, be of this wood.

- A vast quantity of Cypress was used in the construction of this spacious barn. Melting snows, and the severe service conditions of northern winters will not affect the lifetime durability of the roof of Cypress shingles.



Built principally of Cypress, this farm house and adjoining farm buildings will give long, economical service to the owner.

- For hog and poultry houses, corn cribs, silos, cattle pens and sheds, and, in fact, all farm buildings, Tidewater Red Cypress offers the most for your money.

Foresighted farmers who use decay-resistant Tidewater Red Cypress for all of its proper uses, utilizing the correct grades for each respective use, build economically for the future.



- Although far from the warm tidal swamplands of Florida and Louisiana where Tidewater Red Cypress originates, the owner of this typical New England farm in Maine, chose this wood almost exclusively for the construction of his home and adjoining farm buildings.





## SYSTEMATIC CONTROL OF LOGGING, MANUFACTURING, SEASONING and SHIPPING

• • • • *Preserves Nature's Work*



**G**ENUINE Tidewater Red Cypress grows only in the tidal swamplands along the Gulf and South Atlantic Coasts. Perhaps the most costly feature of Cypress logging is the necessity for building many miles of mainline and spur roadbeds through these swamps, many of which have water in them the year around. After the trees are felled and sawn into logs, combination skidders snake them by high or ground line cables to the log trains which carry them to the mill.

Every process in the mill—sawing, edging, trimming, etc., is handled with the care befitting a high quality product. As the lumber comes from the saw it is inspected, graded and then carefully piled in the yard for seasoning. It requires from eight months to two years to properly and thoroughly air-season Cypress, and the stacking of this lumber is almost a

science in itself. The piles are covered with a board roof and the lumber is stacked at a gentle slope to facilitate the quick shedding of rain water. Ends of the individual pieces are protected with over-hanging spacer boards and additional stripping provides free and complete air circulation through each pile. It is the extreme care taken with this lumber in its seasoning which gives it comparative freedom from warpage and shrinkage when eventually used.

Rough seasoned Cypress boards when brought to the planing mill are carefully regraded after dressing. Frequent inspections by the personnel of the Southern Cypress Manufacturers' Association serve as a definite check on the grading of this product.

Cypress is costly to log and manufacture, and an expensive product to store. However, because of the time and care taken in its development, the use of Arrow Brand Tidewater Red Cypress constitutes a sound investment in beauty, durability and service which should be of vital interest to every home builder and user of lumber generally.

**The Florida Louisiana Red Cypress Company handles the entire Cypress output of the following manufacturers:**

**BROOKS-SCANLON CORPORATION**  
FOLEY, FLORIDA

**CUMMER CYPRESS COMPANY**  
LACOOCHEE, FLORIDA

**PUTNAM LUMBER COMPANY**  
SHAMROCK, FLORIDA

**A. WILBERT'S SONS LUMBER & SHINGLE COMPANY**  
PLAQUEMINE, LOUISIANA

**WILSON CYPRESS COMPANY**  
PALATKA, FLORIDA





# BUILD WITH *Arrow Brand* TIDEWATER RED CYPRESS

FOR MAXIMUM SERVICE WITH MINIMUM COST

**W**HEN ordering Cypress it is important that you specify and obtain Arrow Brand Tidewater Red Cypress—"The Wood Eternal." There are several varieties of Cypress on the market, but Arrow Brand is the superior slow growth Coastal type which has a maximum percent of heartwood, a fine, smooth, even grain, and a record for endurance under the most adverse service conditions that is long and enviable. Only those manufacturers who are members of the Southern Cypress Manufacturers' Association are allowed to use the quality-insuring Arrow trade-mark. The member mills of the Florida Louisiana Red Cypress Company belong to this Association. They maintain a high standard for manufacturing, grading, seasoning and handling this Genuine Tidewater Red Cypress. You can, at all times, depend upon the quality of the lumber they ship.

If you are planning a home or any structure calling for a good-sized investment, it will pay you to get the advice of a competent architect. Experience has shown that a good architect, through his expert knowledge, will save you more than his fee.

This TRADE-MARK IDENTIFIES *Arrow Brand*



**E**VERY piece of Cypress shipped by the Florida Louisiana Red Cypress Company carries the registered Arrow Brand trade-mark, clearly identifying the item as Genuine Tidewater Red Cypress. Each board is also grade-marked in strict accordance with the rigid specifications of the Southern Cypress Manufacturers' Association.

## COMPLETE INFORMATION TO HELP YOU PLAN

**I**F there is any special information you desire about Arrow Brand Tidewater Red Cypress—its uses, grades, paintability, suitability for specific purposes, its relative cost and names of dealers in your locality who handle it—write to the address below and the information will be promptly supplied.

**FLORIDA LOUISIANA RED CYPRESS COMPANY**  
BARNETT NATIONAL BANK BUILDING . . . JACKSONVILLE, FLORIDA



**Arrow Brand**  
**TIDEWATER**  
**RED CYPRESS**

FLORIDA LOUISIANA RED CYPRESS COMPANY  
JACKSONVILLE, FLORIDA



**TIDEWATER RED CYPRESS LOG CABIN  
AT THE CENTURY OF PROGRESS**





**MOUNTAIN FRESH . . . OCEAN BATHED**

*Climate at home*

THE FOX FURNACE COMPANY, ELYRIA, OHIO



**M**AN'S first attempt at conditioning the air was made in heating the air. Little attention has been paid to the condition of air in homes during winter, as long as the air was sufficiently warm.

As heating methods improved, sanitation standards advanced, and as medical science progressed, sickness and disease during the winter months — the heating season — instead of decreasing, have increased at an alarming rate.

This has led to the conclusion which practically everyone suspected: Namely, that the dried out, stagnant atmosphere of American homes was dangerously unhealthful. And that heating the home also played a minor part in making it a comfortable, invigorating, inviting place in which to spend 80% of our lives.

This condition evidences the need for a radical change in heating methods. And with the requirements definitely known, science and engineering have collaborated to supply them with the Air Conditioning System which creates an ideal atmosphere in the home. The Air Conditioning System differs from the old fashioned heating plant just as the balmy climate of Southern Florida and Southern California differs from the dry, burning weather of the equator.

The Same Air Conditioning System that safeguards health in the winter can be equally useful in the summer. For it can cool the air and remove the excessive humidity. On oppressive days and nights it can automatically maintain the temperature which you find most comfortable.

There is no longer any need to go south in the winter and to the mountains or shore in the summer — with the modern Air Conditioning System creating a Mountain-Fresh, Ocean-Bathed Climate at home.

## **THE FOX FURNACE COMPANY**

ELYRIA, OHIO

A DIVISION OF  
**A** MERICAN RADIATOR & **S** TANDARD SANITARY  
CORPORATION

**SUNBEAM**  
**AIR CONDITIONING UNIT**



WHAT *is* . . . .  
AIR CONDITIONING?



**A**IR CONDITIONING is the science of duplicating in the home a healthful, wholesome atmosphere. It recognizes that dry heat, stagnant and polluted air, in winter—and sweltering weather in summer—is not a fit substitute for an ideal atmosphere. This modern system completely conditions the air by:

1. Warming it to the proper temperature in winter;
2. Humidifying it to the proper degree in winter;
3. Filtering out dirt, dust, bacteria and foreign matter, the year 'round;
4. Circulating the air, providing healthful ventilation the year 'round;
5. Cooling the air in summer;
6. Dehumidifying the air in summer.

Winter Air Conditioning is vital to good health. Summer Air Conditioning, while required for a

shorter period in most sections, is highly desirable.

To obtain a climate as perfect as that which you can enjoy in an Air Conditioned home, you must journey to a very few select places which nature has seen fit to favor particularly, and at which congregate those who can afford to leave behind the discomforts of disagreeable climatic conditions.

In only one respect is there any similarity between heating systems and Air Conditioning. Both supply heating. It is beyond the ability of the heating system to do anything to make the air, to which you owe your continued existence, moist, pure, clean and stimulating during the winter season.

Nothing in life is as important as the air that surrounds us. 60% of our energy comes from the air, 40% from food and drink. The average person inhales 35 pounds of air each day, or about 5 times the weight of food and water consumed.



C O M F O R T A B L E   W A R M T H

I N *Abundance* I N   W I N T E R

**T**HE first requirement for a perfect climate is delightful warmth — warmth that soothes and caresses you. And this is the kind of warmth that you can expect with the Sunbeam Air Conditioning System. It circulates the air so gently through the registers into each and every room that you are unaware of its entrance. But you are conscious of one thing — that you have never spent a winter so comfortably.

Part of this comfortable feeling is due to the purity of the air and its refreshing moistness. Part is due to uniform distribution of the warmth. Much of the comfortable feeling, however, is due to the lower

temperature you can maintain in the air conditioned home. You need not maintain a high temperature, to which you have been accustomed, and which has a weakening and irritating effect on the human system.

To the thrifty, the comfortable heating of the Sunbeam Air Conditioning System has a special appeal. You burn less fuel when you can maintain a lower temperature. A Sunbeam Air Conditioning System is not a luxury. On the contrary, it is difficult to name anything that is more of a necessity, especially in a home with babies, little children, or where any member of the family is not in the best of health.





THE CONDITIONED AIR IS  
 POSITIVELY *Forced* TO EVERY ROOM!



Above is the electrically driven blower which delivers the conditioned air, under pressure, instantly and uniformly to every room in the house.

If you have had experience with any rooms that "just could not be heated on cold days or when a strong wind was blowing," you will certainly enjoy the Sunbeam Air Conditioning System.

If some of the bedrooms are chilly — if halls are drafty — if half of the living room is warm and the other half cool — if the bathrooms are not the warmest rooms in the house, it will be difficult for you to realize the transformation that the Sunbeam will make. The electric blower positively forces the conditioned air to every corner of every room without fail, in spite of zero weather and penetrating winds.

#### Localized Temperature Control—

Where it is desirable, temperature may be automatically regulated from two, three or more different sections in the Sunbeam Air Conditioned resi-

dence, by placing thermostats in rooms located in each section of the house. Thus, if one room, a solarium for example, or one wing of a large, rambling house cools more quickly because of greater exposure, or high wind velocities, Sunbeam Localized Temperature Control permits the delivery of conditioned air to maintain the proper temperature in this room or section, without overheating the balance of the house and wasting fuel.





YOU BREATHE  
*Moist*  
HUMIDIFIED AIR

During your stay at the seashore, in the mountains, in the pine woods, your greatest enjoyment comes from breathing deep drafts of the fresh, moist, fragrant air. How good it feels. What a pleasant sensation as it fills your lungs.

Makes you sleep more soundly. Gives you a better appetite. Soothes tense nerves. Restores your energy.

Did the air in your home on any winter day ever give you the same sensation? The reason it did not, is that the air in your home probably has a lower relative humidity, than the air in Death Valley.

Cold air can hold practically no moisture. Warm air can hold — and should have — considerable moisture. Nature increases the moisture content

Humidity is regulated automatically by a room control instrument. Water sprays are so located that the moisture is equally distributed and completely absorbed by the air. This humidifier has the capacity to maintain the correct relative humidity during the heating season in any climate.

of the air in the summer months. But when air is heated artificially, moisture must be added.

The correct relative humidity (air saturated with moisture has a relative humidity of 100%) has been found to be between 40% and 55%. The relative humidity in the average home in weather 20° above zero is between 10% and 25%. This thirsty air extracts moisture from our bodies, dries out the mucous membranes of the nose and throat, and makes respiratory diseases so prevalent. Each winter day, depending on the size of your home, 5 to 25 gallons of water should be added to the air. Moist air preserves furniture, wood work, paintings, musical instruments, antiques, objects of art and plants, as well as your health.



Y O U B R E A T H E

*clean  
filtered  
purified* A I R

**Y**OU know that there is a large amount of dirt and soot in the air because you see it, because it necessitates extra work. You are continually dusting. Measurements have shown that one to five tons of soot are deposited daily in an average city for every square mile of area. Every housewife knows the external effect of dust-laden air.

The internal effects are more serious. You breathe, each day, more than 400 cubic feet of air. Estimate the amount of polluted foreign matter suspended in the air, which has gained entrance to your lungs. This foreign matter includes bacteria and germs, which attach themselves to dust particles. Medical authorities realize how dangerous this has become. Dr. Bundesen, Health Commissioner of Chicago, states that 60% more people are dying from respiratory ailments caused by contaminated air, than all other diseases.

Meats and foods are inspected; milk is pasteurized; water is filtered for your protection. Now the Sunbeam Air Conditioning Unit purifies the air you breathe. When the air passes through the system, every few minutes, filters remove at least 90% of suspended matter. The conditioned air is free from dust, soot and germ colonies. And if you suffer from hay fever or asthma, you will be pleased to know that Sunbeam Conditioned Air is virtually devoid of pollen and other protein impurities which cause and aggravate these maladies.

Notice the difference between an air conditioned room and an ordinary room. A shaft of sunlight will show you thousands of particles suspended in air that is not conditioned.

Opposite is a section of a clean filter. Alongside is the same filter after a few months in service. Dirt, germs and pollen in the air that enters into your home are eliminated immediately before the air is distributed.





## AN AIR CONDITIONED HOME

IS A

# Ventilated Home

**D**O you become drowsy and tired in the evening and lose your energy after sitting around for a short period? Lack of ventilation is one of the causes for this feeling. In spring and summer when windows and doors are open and the air circulates freely through the house, you don't have that oppressed feeling every evening.

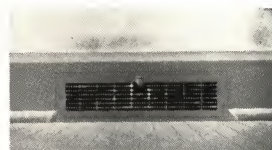
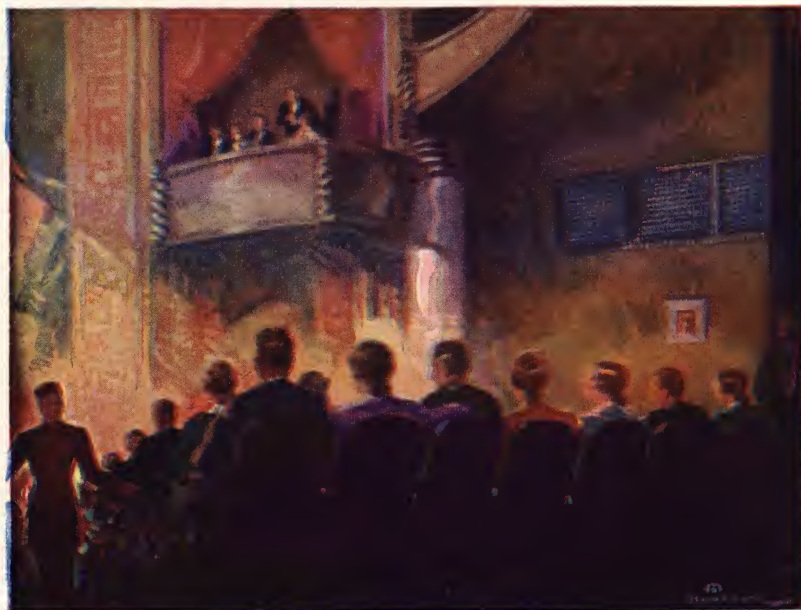
In building or buying a home most people plan or seek one with "through ventilation" when the windows are open. This is fine. But during the heating season with windows tightly closed to keep out the cold, there is no ventilation. And it is during the winter months that you have your greatest need for it!

Ventilation is demanded by law, in schools, theatres, and public buildings. You have often seen the grilles

and registers through which the air is changed. The Sunbeam has the same equipment (smaller in size) for providing ventilation, that you find in large buildings. It gives you a change of air every 10 to 15 minutes.

The outside air which filters into the home around windows and doors is immediately drawn into the system through recirculating grilles. As it is conditioned, it circulates through the warm air or discharge registers. In the average house a sufficient amount of outside air enters by infiltration each hour to displace and expel all the "inside" air. This outside air is only valuable if it is circulated throughout the house.

Any air containing odors, as is often the case in kitchens or other rooms, can be conveniently vented or discharged out-of-doors.

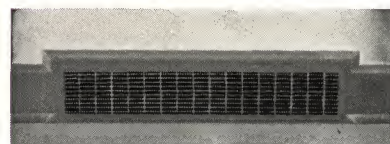


A Warm Air Register

Air circulating through these registers duplicates the ventilation obtained in large public buildings.

Registers and grilles can be installed in baseboards, or walls, and can be finished to harmonize. They do not deprive you of any floor space, nor do they interfere with the most artistic arrangement of your furniture.

A Recirculating Grille







YOU ENJOY A *Cool Home* ON HOT  
SUMMER DAYS AND SWELTERING NIGHTS

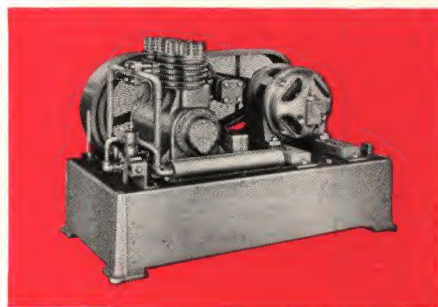
*W*HAT would you give for relief from the heat, on a blistering summer day or a stifling summer night? When you are drenched with perspiration? When you cannot sleep? Jumping into the car and joining a motor-ing procession on hot pavements, reeking with gasoline fumes and carbon monoxide exhaust gases, is no relief. Plunging into ocean, lake or river cools you temporarily, but increases discomfort afterwards.

The Sunbeam Air Conditioning System offers you perfect relief! Immediate relief! Permanent relief! A refrigerat-ing machine of the type shown opposite can be connected to the Sunbeam. In the Summer, the tem-perature of the air is lowered as it passes over cooling coils. The cooling coils which are located in a special compartment, are

connected to the refrigerating unit. As the tem-perature of the air drops, moisture is precipitated from it, thereby reducing the high relative humidity which generally obtains in hot weather.

The thermostat will regulate the cooling operation of the system and will maintain the degree of temperature that you find most agreeable. The cooling plant is simple in construction and operation. It is no more complicated than the equipment that you now have with your household electric refrigerator.

You can install the refrigerating unit when you purchase your Sun-beam Air Conditioning System—or later. It is immaterial when you do it. The same ducts and registers which carry the warm, filtered, conditioned air in win-ter, are used for the cool, fil-tered, conditioned air in summer.



The Refrigerating Unit for cooling and dehumidifying the air in hot weather



*Oil Burning*

SUNBEAM

AIR CONDITIONING UNIT

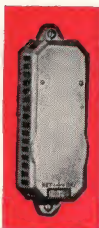


This Sunbeam Air Conditioning Unit has been designed to burn oil exclusively. With its two-tone green enamel finish, graceful proportions, and rounded corners, it makes an unusually attractive addition to any basement.



#### THERMOSTAT

Room temperatures are automatically regulated by one, or more, thermostats. In winter, the thermostat sets the unit in operation when temperature drops below a predetermined temperature, 70° for example. Summer temperatures can also be regulated by thermostat.



#### HUMIDISTAT

This instrument is located in one of the living rooms and controls the spray humidifier. The Humidistat automatically regulates relative humidity in the home just as the thermostat automatically regulates temperature.

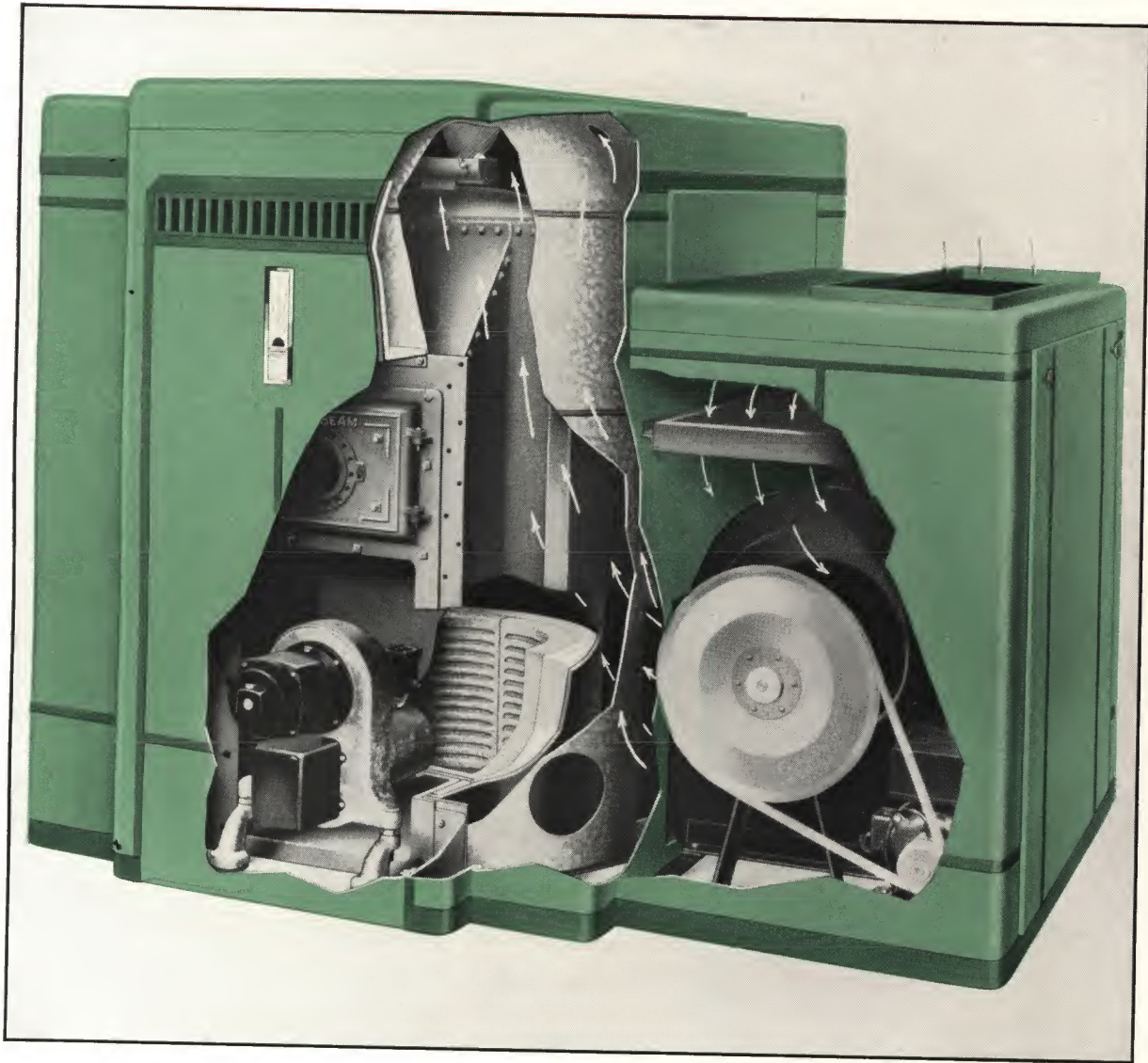


#### BLOWER SWITCH AND LIMIT CONTROL

Instruments of this type prevent blower from operating until after conditioned air has been heated to blower switch setting. No cool air can be circulated during heating season. Also act as a safety device and shut off heat supply if temperature rises above limit control setting.



# HOW THE *Air Conditioning* UNIT FUNCTIONS



This cutaway illustration shows the interior construction of the Sunbeam Oil Burning Air Conditioning Unit

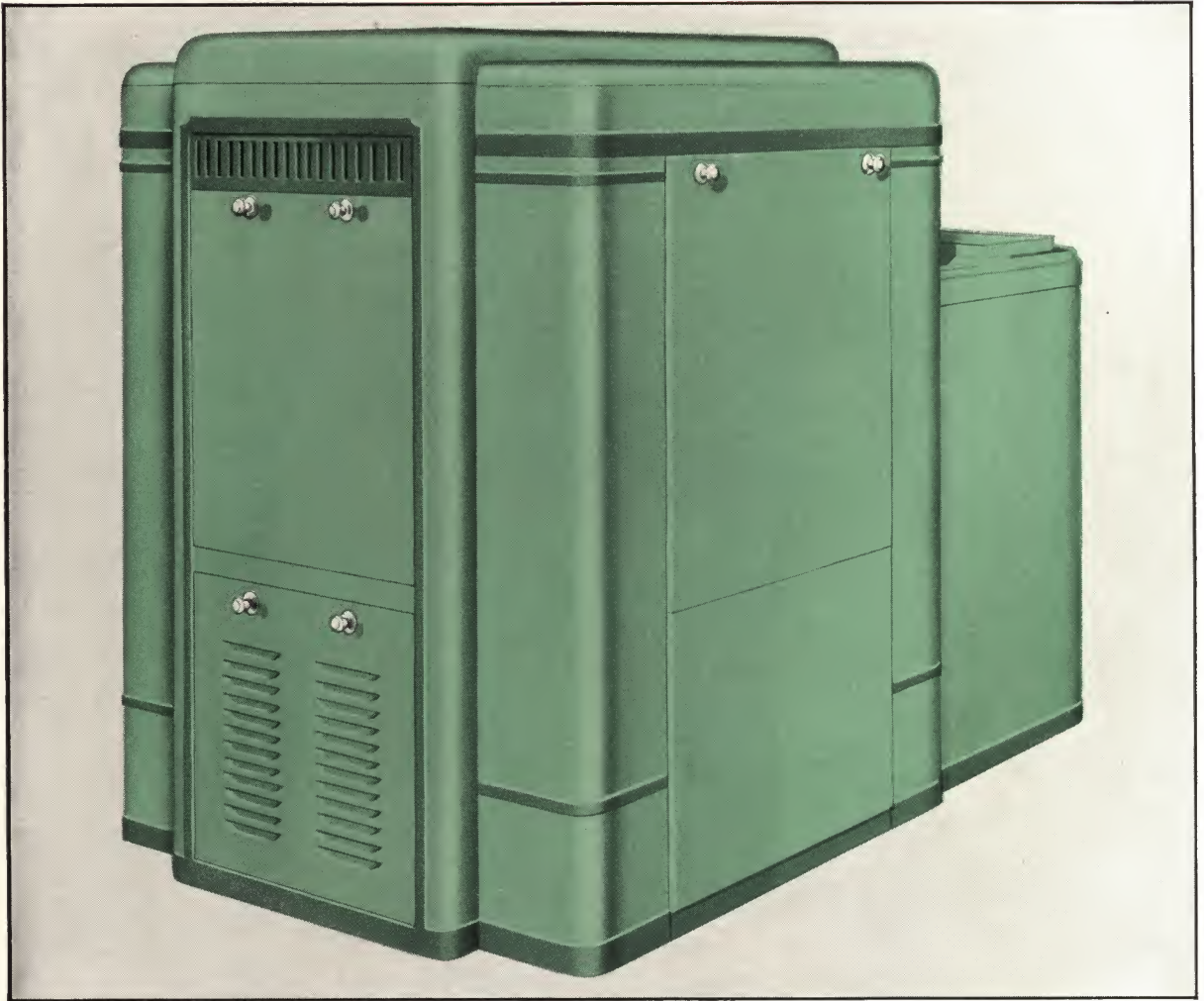
The air is drawn in the Sunbeam through the Return Air Duct. The filters through which it passes remove the dirt, soot and germs before the electric blower forces it into the heating chamber, where it is warmed. The air now cleansed and heated, obtains the proper amount of moisture from the Humidifier, located at the top of heating element, before it passes into

the distributing ducts which lead to each room. When refrigerating equipment is used with the system, the cooling coils can be placed in a special compartment behind the blower and filter compartment. The compressor can be placed anywhere in the heater room or basement. In summer, the heating element and humidifier are not in operation.



THE SUNBEAM GAS FIRED

# *Air Conditioning* UNIT



(Designed for Gas Exclusively)

In the Sunbeam Air Conditioning Unit, handsome appearance is combined with ingenious design. The exterior is pleasingly finished in a two-tone green baked enamel which retains its attractive appearance indefinitely.



## THERMOSTAT

Room temperatures are automatically regulated by one, or more, thermostats. In winter, the thermostat sets the unit in operation when temperature drops below a predetermined temperature, 70° for example. Summer temperatures can also be regulated by thermostat.



## HUMIDISTAT

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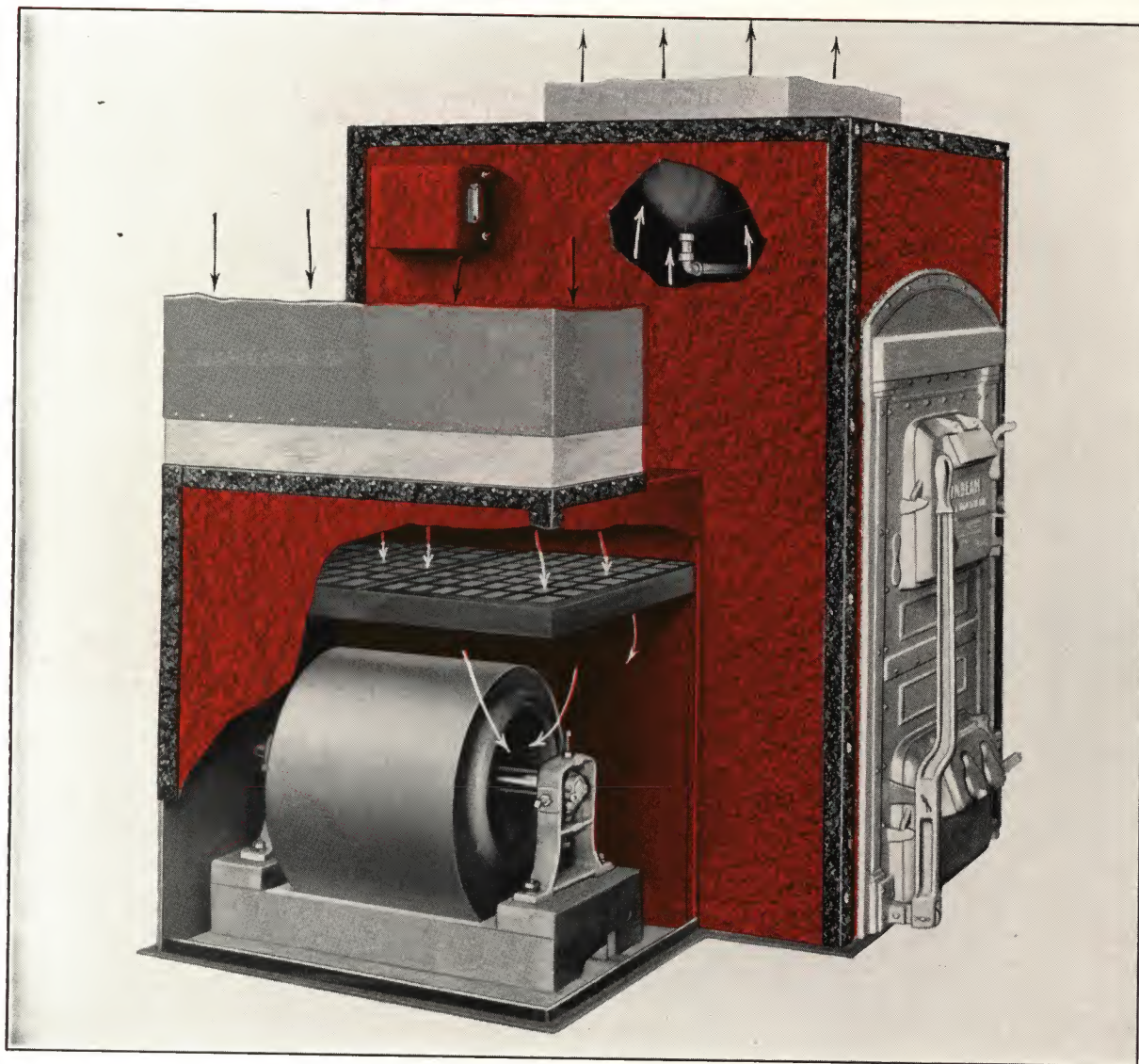
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Instruments of this type prevent blower from operating until after conditioned air has been heated to blower switch setting. No cool air can be circulated during heating season. Also act as a safety device and shut off heat supply if temperature rises above limit control setting.



## HOW THE SUNBEAM

# *Completely Conditions* THE AIR

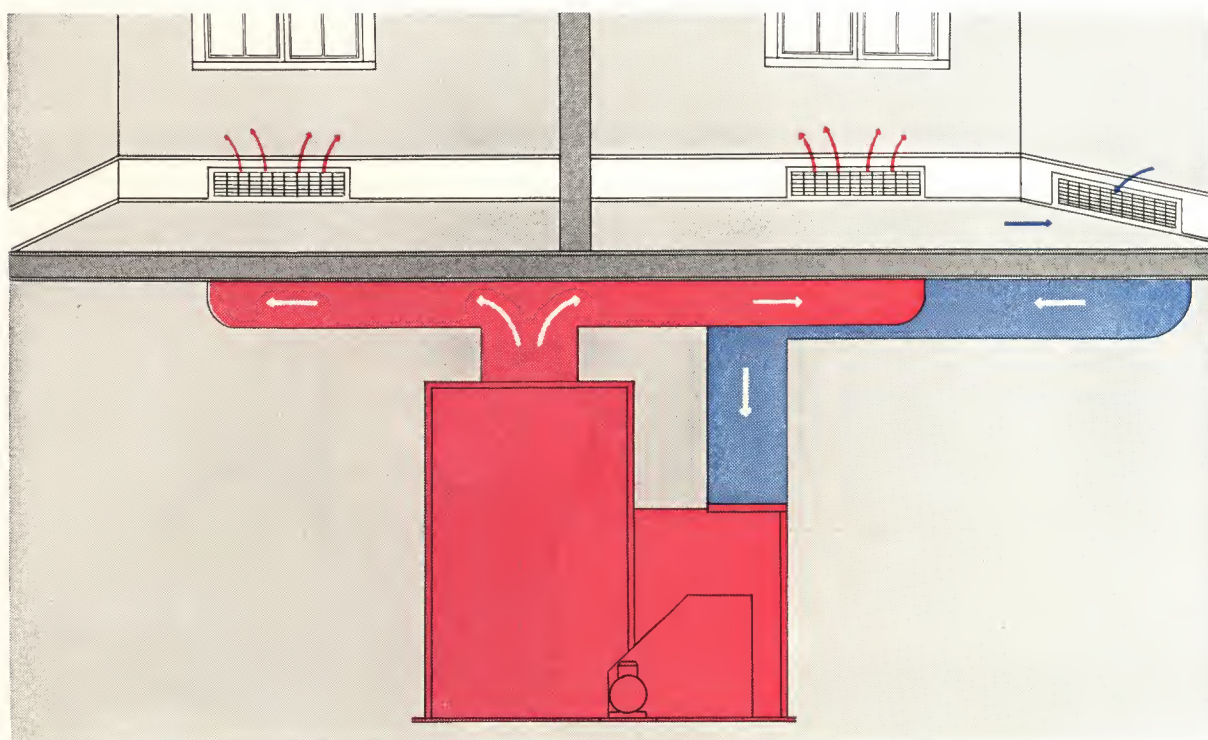


The illustration shows the Coal Burning Model furnished in red and black crystalline baked enamel

This Unit operates identically with the other Sunbeam types. Air is drawn in through the recirculating duct, is cleaned by the filters, forced into heating compartment, moistened by the humidifier and finally passes through the conditioned air ducts and registers. Where a high calibre air conditioner at a surprisingly

low price is desired, the Coal Burning Sunbeam, shown above, fills the requirement perfectly. It is furnished with the same blower, filter, humidifying and control equipment used in the other Units shown in this book. STOKER-FIRED MODEL: The type of Sunbeam air conditioner shown above is also made in a stoker-fired model.





## HOW THE CONDITIONED AIR IS *Circulated* THROUGH YOUR HOME

**T**HE Sunbeam Air Conditioning System places nothing complicated in your basement; nothing difficult to understand; nothing that requires special knowledge. There is only the unit itself and the ducts or pipes shown in the illustration on this page. There is nothing to get out of order or cause trouble.

The air is delivered under pressure which makes it possible to use small ducts, pipes and registers. In

replacing a furnace system this higher velocity enables the Sunbeam Heating Contractor to utilize the present runs which would have insufficient capacity without the forcing action of the blower.

The Sunbeam can be placed anywhere in the basement; in the center, at one end, or in a corner out of the way. The ducts can be, and generally are, concealed by a ceiling in the basement. There need be no visible evidence of the Air Conditioning System in the basement, outside of the heater room.





## *The Basement*

### **THE MOST POPULAR ROOM IN THE HOME**

The possibilities of the basement are unlimited with Air Conditioning. The Unit is out of the way in a space that can be utilized in no other manner. The flat, compact air ducts are placed above the ceiling out of sight. And this valuable space becomes whatever you want it to be. A play room for the youngsters.

A gymnasium. Dance hall. Card room. Billiard room. Or just a general assembly room and recreation center. With the Sunbeam, this recreation center can be kept as spotless and as sanitary as any other rooms. And it will be thoroughly ventilated and air conditioned like the rest of the house.

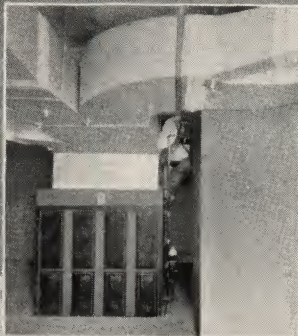


SOME HOMES EQUIPPED WITH

*Sunbeam*

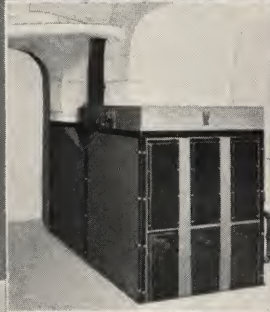


The Sunbeam installation and the attractive recreation room in the basement of an air conditioned residence.





# *Air Conditioning Systems*



The heater room and  
the recreation room of  
another Sunbeam  
equipped residence.





# *You* CAN AFFORD THE SUNBEAM AIR CONDITIONING SYSTEM

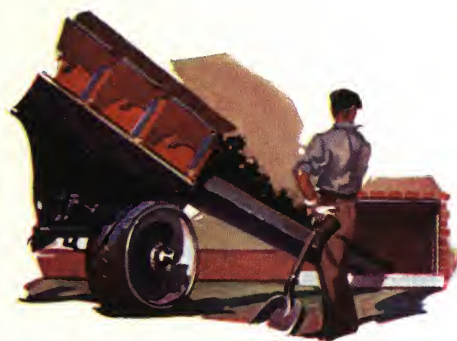


Nearly everyone, when they learn about Air Conditioning, remarks that it is a much needed development and must be costly. Since the Sunbeam has been introduced, residential Air Conditioning is no longer expensive. The resources, purchasing ability and manufacturing facilities of the world's largest makers of heating equipment, bring this equipment within the purchasing reach of virtually every home owner who appreciates the advantages of Custom Made Climate at home.

In many homes the initial cost of a new Sunbeam — without the cooling equipment — will be about the same or a few dollars higher than that of a good heating system, properly installed.



In certain homes above average in size and now equipped with furnaces, Air Conditioning may be lower in price. The Sunbeam Heating Contractor in your neighborhood or community will gladly study your requirements and submit plans and give you a definite quotation.



You are not being fair to yourself and your budget of expenditures, if your comparison stops with the initial costs. For when you take into consideration the saving in fuel, doctor, medicine, cleaning and decorating bills — and the loss of income when incapacitated by winter illness — each year and every year that you enjoy Sunbeam Air Conditioning, you will discover that it is the most economical innovation that has yet been presented to home owners anywhere.





THE FOX FURNACE CO.  
ELYRIA, OHIO

Gentlemen:

- ☐ Will you have one of your representatives tell us more about Sunbeam Air Conditioning?
- ☐ Will you have one of your representatives submit cost estimates and plans for Air Conditioning our new home, without obligation or cost to us?

FILL IN AND  
RETURN THIS  
POST CARD  
NO STAMP  
IS NEEDED

Name \_\_\_\_\_

Address \_\_\_\_\_

City and State \_\_\_\_\_

## THE ORGANIZATION BEHIND THE SUNBEAM AIR CONDITIONING UNIT

**Y**OU can select this most modern of systems with a sense of deep security because of the reputation, experience and responsibility of the organization behind it, which has played a leading role in every new development in the science and progress of heating.

The heating contractor who sells and installs this equipment is a member of your community, an independent, local businessman. He is well qualified by training and experience to make an installation to your perfect satisfaction. He has at his disposal the services of a staff of heating and air conditioning engineers at the factory. These Engineers are ready at all times to advise and assist Sunbeam Contractors and are prepared, wherever advisable, to plan and design the installation of the Air Conditioning System.

All Sunbeam Systems are suitable for small schools, churches, stores, and other buildings whose requirements are within the capacities of this equipment.

## THE FOX FURNACE CO., ELYRIA, OHIO

A DIVISION OF AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

**SUNBEAM**  
**AIR CONDITIONING UNIT**



FIRST CLASS  
PERMIT No. 46  
Sec. 384½ P. L. & R.  
ELYRIA, OHIO

**BUSINESS REPLY CARD**

No Postage Stamp necessary if mailed in the United States

2c --- POSTAGE WILL BE PAID BY

**THE FOX FURNACE CO.**

**ELYRIA, OHIO**



**THE FOX FURNACE COMPANY, ELYRIA, OHIO**





**Gar. Wood**

**TEMPERED - AIRE**



**AIR CONDITIONING SYSTEMS**  
*for the home*



# AIR Conditioning FOR YOUR HOME

EVERYBODY agrees that air conditioning is a prime requisite in a truly modern home. But air conditioning does not always mean the same thing to different people. Therefore, before going into the details of the Gar Wood system itself, let us define what we mean by air conditioning, so that you can see how closely these principles coincide with your own ideas on the subject.

The two major considerations in air conditioning are health and comfort. These considerations demand:

*First*, a means of filtering the air, so that it will be clean and free from dust, soot and other impurities.

*Second*, a means of humidifying the air, so it contains the right amount of moisture, neither too much nor too little for health and comfort.

*Third*, a means of keeping the air at a constant, pleasant temperature, without labor or worry.

*Fourth*, proper circulation and ventilation, so that uniform air conditions shall exist in every part of every room in the house under all circumstances.

*Fifth*, that each of these functions shall be entirely automatic and dependable, day and night.

*Sixth*, that the system be designed and sold as a complete unit, not as a collection of separately engineered and separately manufactured units.

*Seventh*, that the method of installation be so systematized that architects and builders get complete cooperation and assured results.

*Eighth*, that the system be inexpensive to buy and economical to operate over a period of years.

Gar Wood offers all of these advantages in two types of systems—the Tempered-Aire, which is a direct system, and the Indirect System, both completely built by Gar Wood Industries, Inc.

These systems are identical in everything except the heating plants and certain minor details, the Tempered-Aire warming the air directly and the



*"Talk about parlor magic! Those two automatic devices manufacture any climate we order."*

Indirect System warming it through the medium of a steam or hot water boiler with integral burner.

Both systems are oil burning, using low cost fuel oil. Both are economical and efficient. Both are well adapted to the needs of small or large homes and both are standardized air conditioning systems, complete to the last detail, installed and inspected under a rigid, factory controlled method. To be efficient, an air conditioning system should be designed into the house it serves. Here, Gar Wood offers the architect and builder an engineering service of unique character, a thoroughly practical means of insuring perfect performance and satisfaction in every respect.





*"Tempered-Aire is my tireless housekeeper. It keeps my curtains and furniture free from dust."*

**S**MOKE and soot from factories and homes and trains—dust blown in from streets and alleys—rising dust from sweeping and cleaning in the home—impurities from thousands of different sources constantly pollute the air of cities and put a tax on the health of growing children and adults alike.

It is quite impossible to prevent these germ-laden particles from getting into the home. But it is easily possible to capture them and keep them from doing harm.

That is the purpose of the Gar Wood Air Filter, through which every breath of air in the house must pass every ten or fifteen minutes. Think of it! If every room in

## Purifying THE AIR YOU BREATHE

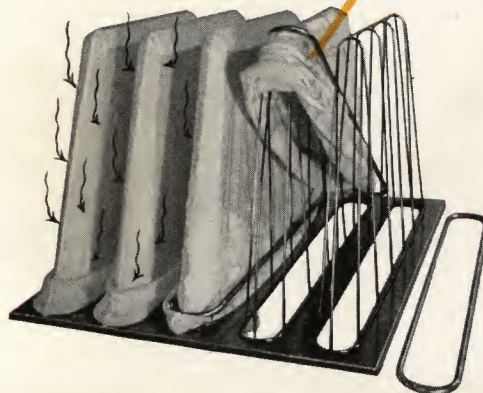
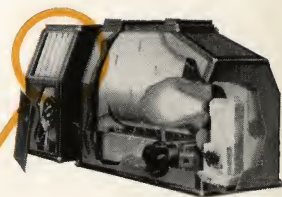
your house were filled with dusty air, within a few minutes every bit of the dust in suspension would be filtered out and the air would be clear and clean.

This Air Filter is located just where the return duct joins the blower intake, so that all the air must pass through the filter before it circulates again. So, even if several people are smoking, or an unusual amount of dust is being raised in the house, the air is cleaned before hangings are soiled or lungs are filled with impurities.

This Air Filter is an exclusive Gar Wood development. It consists of a series of collector screens made of special woven fabric and having a tremendous filtering area. Once or twice a year these collector screens may be lifted out and cleaned in the washing machine. They can be removed and put back in a few minutes, by lifting and replacing the retaining rings. The Gar Wood Air Filter is the simplest and most effective type and overcomes the objections that owners of air-conditioning systems have raised to other types of filters.

Dissatisfaction with other types of filters, often leads owners to remove the filtering devices altogether, thus defeating one of the most important health advantages of air-conditioning.

### REMOVABLE AND WASHABLE CLOTH FILTERS



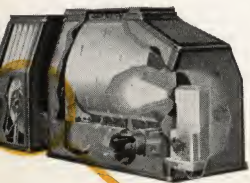


# Ventilating

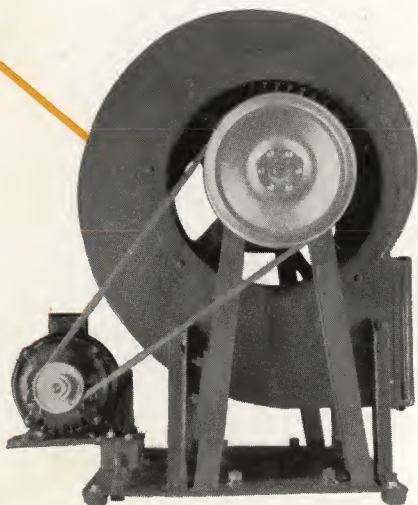
## EACH NOOK AND CORNER

**E**VERY heating system ventilates to a certain extent. But the dust over registers and radiators shows where most of the circulation takes place. Gar Wood ventilation is as positive as the circulation of blood in the human body. With at least one inlet and outlet in each room, every bit of the air in the house is in constant circulation, the flow being controlled by the silent multivane blower and the scientifically designed air ducts and grilles. The blower is the heart of the system; the warm air ducts are the arteries, and the return ducts are the veins; while the filter is the lungs, removing impurities and returning the clean air to the blower.

Yet this circulation is so gentle as to be imperceptible. It creates no cold drafts, no violent rushes of heated air, no dead spaces where circulation does not exist. All of the air is under constant, measured control. That is because the sizes of ducts and grilles are accurately figured for each room, carefully located in each room, exactly calculated for their length of travel and number of fittings and, finally, because the blower is mathematically timed to circulate the correct volume of air per minute.



**SILENT, MULTIVANE  
AIR BLOWER**



*"Tempered-Aire is healthy air! My flowers grow better and there are no cold drafts anywhere."*

The blower is a triumph in silent efficiency. It is not a fan, but a multivane blower, designed to maintain a constant pressure in the plenum chamber and trunk lines and an even suction in the return ducts, so that circulation is independent of wind or weather conditions. It is a slow speed blower, with special oil absorbent bearings which are self aligning. It is driven by a special electric motor, which has no starting brushes, hence no noise. The motor is on a hinged mounting, the weight of the motor providing the belt tension. The entire blower assembly is rubber mounted and rubber insulated. Finally, the blower discharge is connected with the blower by a canvas connection which prevents vibration and "telegraphing" sound.



# LOW COST OIL Heating



*"What a lot of oil our neighbors use! They should buy an economical Tempered-Aire."*

**I**F YOU pass your finger quickly through the flame of a candle, you will scarcely feel the heat. Pass it through slowly and you will be badly burned. Why? Because heat requires time to pass from one medium to another. The essence of Tempered-Aire design is the slow, thorough extraction of heat from large, moderately heated surfaces, rather than snatching it quickly from a small, overheated surface.

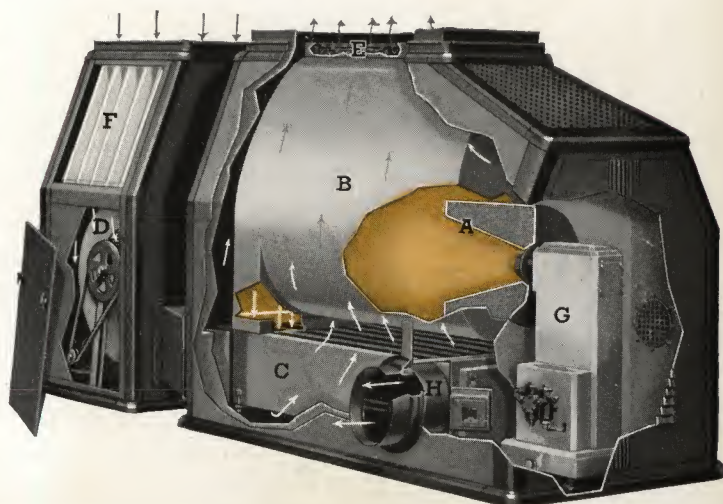
Consult the diagram and you will see the ingenuity of the Tempered-Aire design. The conical flame is generated in a cone-shaped funnel (A) made of refractory material and discharges into the center of the metal firebox (B). At no point does the live flame touch

metal. The hot gases expand and fill the firebox, seeking their natural outlet at the top. Instead, they are drawn slowly downward through the flat economizer tubes (C) in the space which would ordinarily be the ash pit, the heat being absorbed from the gases in their travel forward through the tubes. When at length the gases enter the chimney, approximately 90% of the heat has been taken from them and used.

The firebox is run to a peak at the top, resulting in a crown sheet of minimum width, at the greatest possible distance from the flame. The cool air from the blower (D) enters at the bottom of the furnace and is preheated by passing around the flat economizer tubes. It then passes between the inner casing and the wall of the firebox, then across the humidifier (E) and on into the plenum chamber for distribution. The double casing prevents loss of heat into the basement.

This revolutionary type of furnace is economical because it utilizes the heat that would otherwise go up the chimney. That is why Tempered-Aire has an extremely low stack temperature and why oil goes farther in a Tempered-Aire. Don't forget that Tempered-Aire burns heavier grades of fuel oil which are higher in heat units and lower in cost.

- |              |              |              |
|--------------|--------------|--------------|
| A—Firebowl   | B—Firebox    | C—Economizer |
| D—Blower     | E—Humidifier | F—Filters    |
| G—Oil Burner | H—Stack      |              |



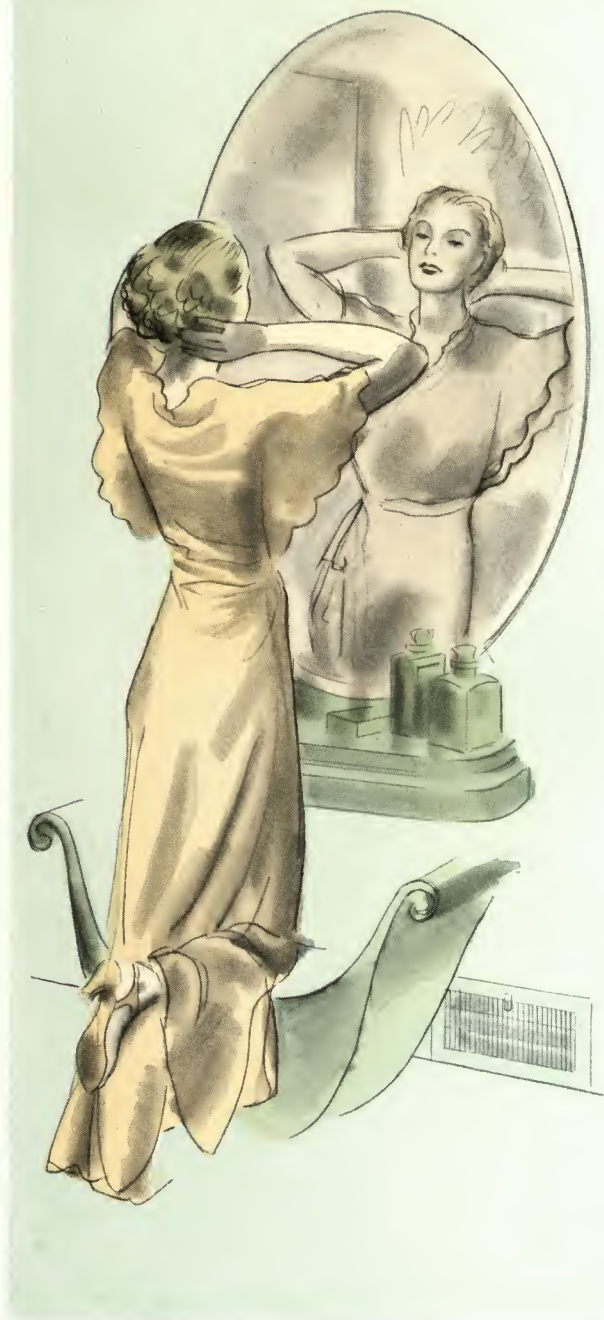
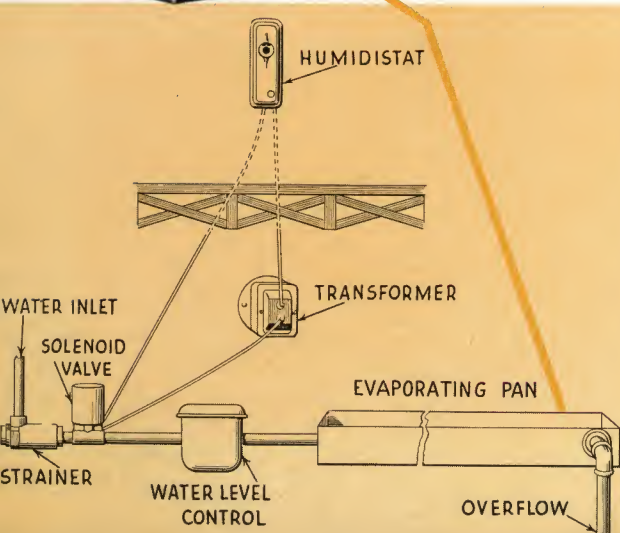
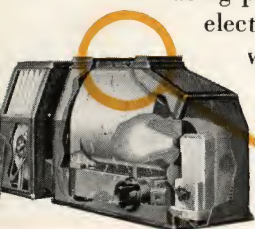


# REGULATING THE Humidity

**B**OTH comfort and health demand a balanced quantity of moisture in the air. Air that is too dry extracts water from human air passages and body tissues and upsets the functioning of the pores. Air that is too moist makes us over-sensitive to both heat and cold and prevents natural evaporation from the skin. Either condition is unhealthy and increases the difficulty of maintaining a comfortable temperature. Changes in humidity require corresponding changes in temperature to give the same feeling of warmth.

Humidity control is therefore one of the greatest benefits of correct air conditioning and it can only be achieved by automatic means.

There are three devices in the Tempered-Aire humidifying system; a humidistat located in the living room, which closes an electrical switch when the humidity falls below normal; an evaporating pan, located on top of the crown sheet of the firebox, in the path of the air leading into the plenum chamber; a constant level valve; and a solenoid valve located above the evaporating pan, which opens and allows water to flow into the evaporating pan when the humidistat closes the electrical switch. The solenoid valve is wound for low voltage and is supplied with current by a small step-down transformer.



*"Here's another Tempered-Aire blessing! Correct humidity keeps my skin soft and healthy."*

When the humidifier is in operation, a constant level of water is maintained in the evaporating pan by means of a constant level valve. The heat for vaporizing the water is supplied by the crown sheet of the firebox and the moisture is picked up by the incoming air passing over the evaporating pan.

Correct humidity is thus automatically assured in a Tempered-Aire home and is distributed evenly through every room in the house. It prevents floors, woodwork and furniture from drying up, guards the health of the family and promotes a feeling of bodily comfort which cannot be achieved by the constant drying action of old-fashioned heating and ventilating methods.



# Cooling AIR IN SUMMERTIME



*"Tempered-Aire brings restful sleep on sultry nights. It's like sleeping outdoors all summer."*

**I**F YOU could sleep outdoors on pleasant summer nights, and if the upper rooms were as cool as the basement during the day, you would be quite comfortable all summer long. And that is just what Tempered-Aire does for you in summer.

Weather Bureau statistics prove that summer temperatures at night average 20° cooler than those of the day. By drawing in the outside air after sundown and forcing it through the system, and by circulating the air through the cool basement during the day, a satisfactory degree of cooling is effected throughout the house. The heat retained by the walls during the day is quickly absorbed by the cool evening air and a com-

fortable sleeping temperature is assured. On sultry days, when no breeze is blowing, Tempered-Aire keeps up a constant circulation of air in the house.

All that is necessary to secure this summer cooling is to install an outside intake in the basement wall, as shown in the illustration. The switch from inside air to outside air is made at sundown.

All of the air thus circulated is passed through the air filter to remove dust and impurities. The air then passes through the plenum chamber and air ducts, so that uniform ventilation is secured.

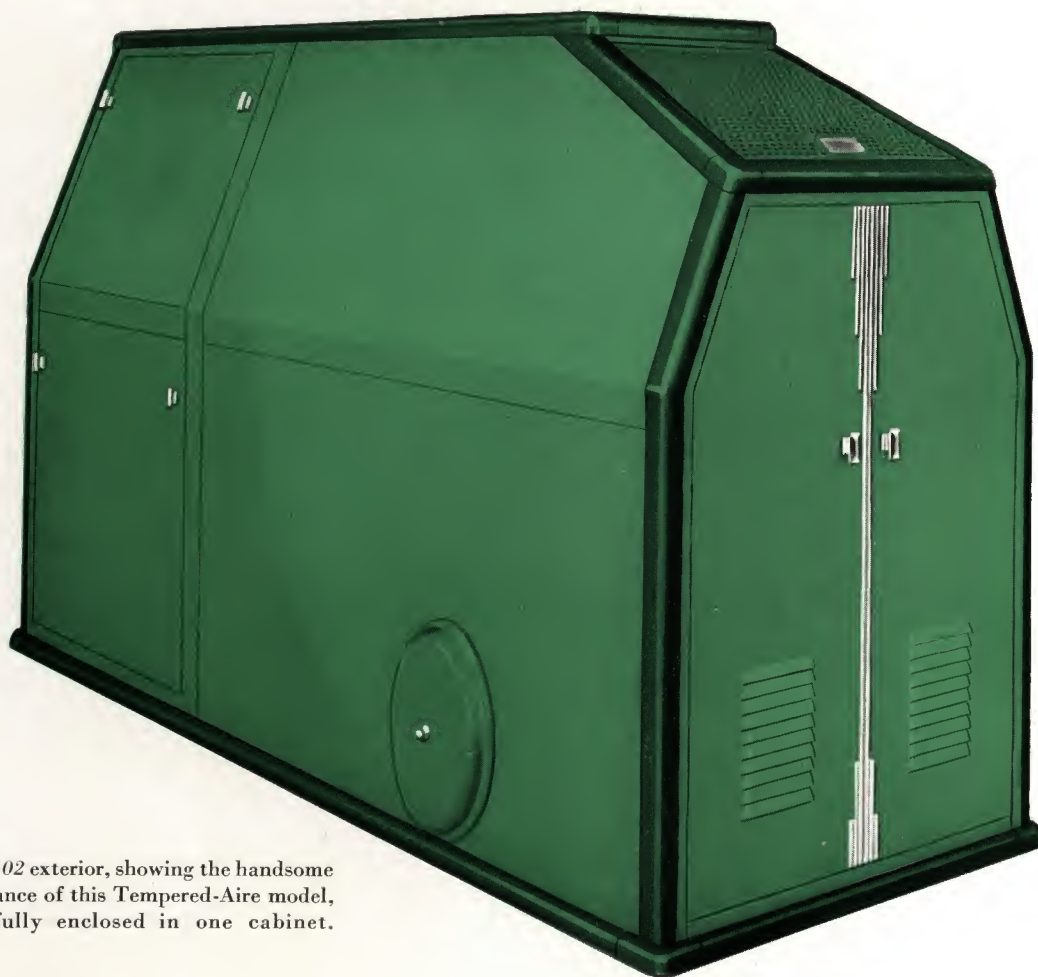
This system of cooling, which simply takes advantage of natural phenomena, has proved highly satisfactory. It reaches its highest efficiency where the house is well insulated and the attic space properly ventilated. Such insulation is doubly logical, because it will quickly pay for itself in fuel saved in winter time. Awnings also help in cooling by preventing the direct rays of the sun from entering.

In those rare cases where extra cooling and dehumidifying are required, these devices can be easily installed as part of the Tempered-Aire system. But ordinarily, the summer cooling here described is adequate and effective.





# A TEMPERED-AIRE

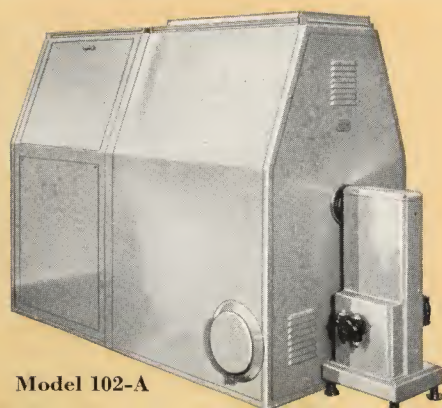


● *Model 102 exterior, showing the handsome appearance of this Tempered-Aire model, which is fully enclosed in one cabinet.*

**T**EMPERED-AIRE is made in five types and sizes, to fill all domestic heating requirements, from those of a small house to those of a large mansion. The basic design is identical in all of these Tempered-Aire systems, with only slight changes which are dictated by the capacity or ease of installation of each model.

● *Model 102-A: Identical with Model 102, except for the outer cabinet, which is less expensive to build and effects a substantial saving in the purchase price. This model was brought out in response to a growing demand for a low-cost unit for the less expensive homes. (BELOW, LEFT)*

● *Model 102: Complete in one cabinet, for "average size" homes. All parts fully enclosed and protected. Steel cabinet beautifully finished and lacquered green. Air delivery, 1000 to 1575 cubic feet per minute. Total heating surface, 90 square feet. Filter area, 34 square feet. (BELOW, RIGHT)*



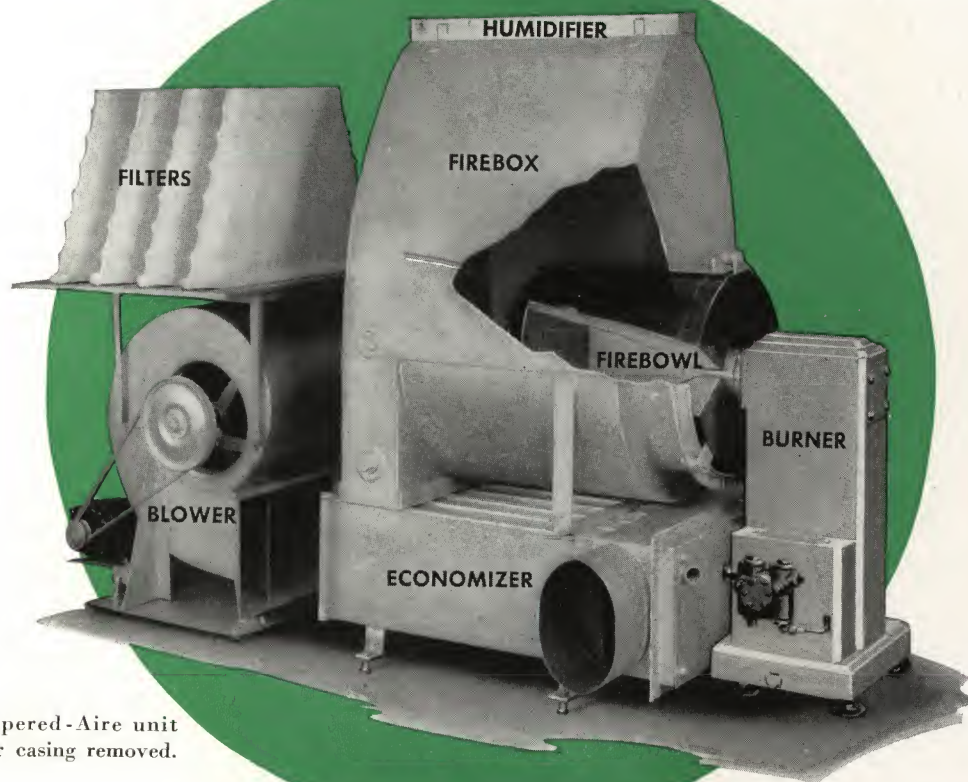
Model 102-A



Model 102



# FOR EVERY HOME

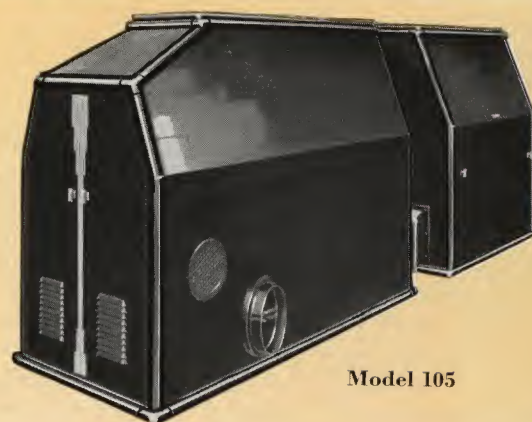


The Tempered-Aire unit with outer casing removed.

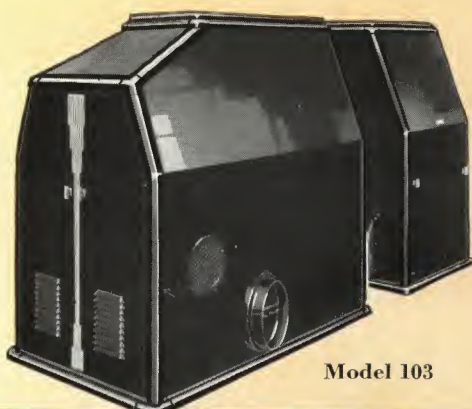
**Model 103:** Filter and blower unit in separate cabinet, with flexible sound-deadening connection to furnace-burner unit. Both cabinets handsomely finished in green lacquer. All parts fully enclosed. Air delivery, 1375 to 2150 cubic feet per minute. Total heating surface, 132 square feet. Filter area, 43 square feet. (BOTTOM, LEFT)

**Model 104:** Another two-cabinet system, with separate cabinets for filter-blower and furnace-burner units. Steel cabinets, green lacquer finish. All parts fully enclosed. Air delivery, 1875 to 2950 cubic feet per minute. Total heating surface, 176 square feet. Filter area, 60 square feet. (BOTTOM, RIGHT)

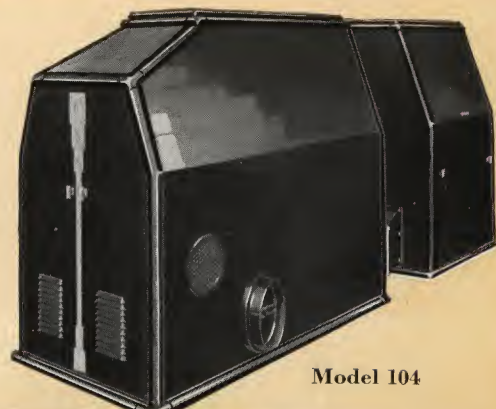
**Models 105 and 105-C:** Two-cabinet systems for large homes. Filter-blower unit and furnace-burner unit in separate steel cabinets, lacquered green. Air delivery of Model 105, 2500 to 3925 cubic feet per minute; Model 105-C, 3000 to 4500 cubic feet per minute. Total heating surface, 220 square feet. Filter area, 77 square feet. (RIGHT)



Model 105



Model 103



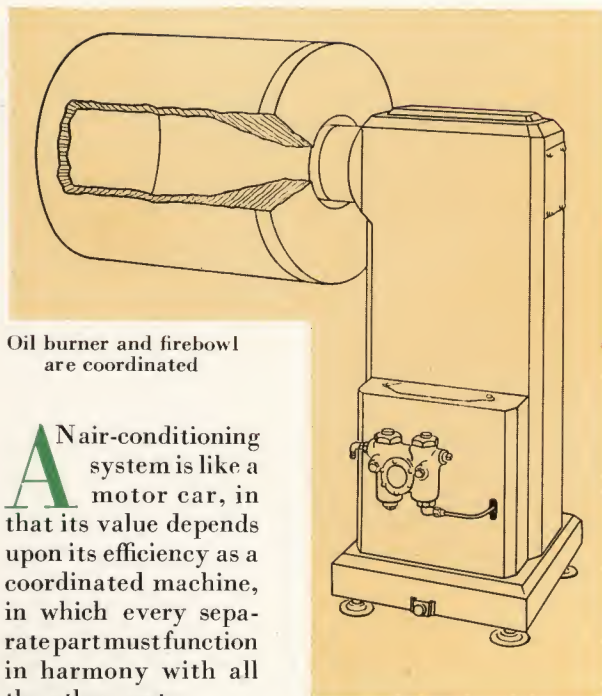
Model 104



EXCLUSIVE

*Engineering*

ADVANTAGES



Oil burner and firebowl are coordinated

**A**ir-conditioning system is like a motor car, in that its value depends upon its efficiency as a coordinated machine, in which every separate part must function in harmony with all the other parts.

Tempered-Aire is the only air-conditioning system which is engineered and built complete, from oil burner to ducts, in one factory. All parts are designed to work together and not to be adapted to units designed by other manufacturers.

As the result of designing oil-burner and furnace together, Tempered-Aire extracts and uses approximately 90% of the heat generated by the burning oil. This astonishing efficiency arises from three principal sources: (1) complete oil combustion; (2) the slow absorption of heat from unusually large heating surfaces; (3) the use of the counterflow principle.

#### THE COORDINATED OIL BURNER

Complete combustion of the oil in the Tempered-Aire burner is secured by coordinating the oil spray, the air delivery and the shape of the refractory firebowl in which the mixture of oil and air is burned.

Oil burns as a gas, which is formed by mixing oil spray with air. In the Tempered-Aire burner, the oil spray and air are both discharged under pressure, with a whirling motion, into the cone-shaped refrac-

tory firebowl. This whirling motion causes oil and air to mix intimately into a completely combustible gas, which is ignited by high-voltage electric spark. The flame assumes a cone shape, because of the forward velocity combined with the rotary motion of the air and the oil spray. The combustion is perfect because of the complete carburetion and the accurately metered proportions of oil and air.

The firebowl is coordinated with the flame by making it cone-shaped also. This firebowl is made of refractory material, which reflects the heat back into the flame, thereby developing and maintaining the extremely high temperature that is necessary to the complete combustion of heavy grade fuel oil.

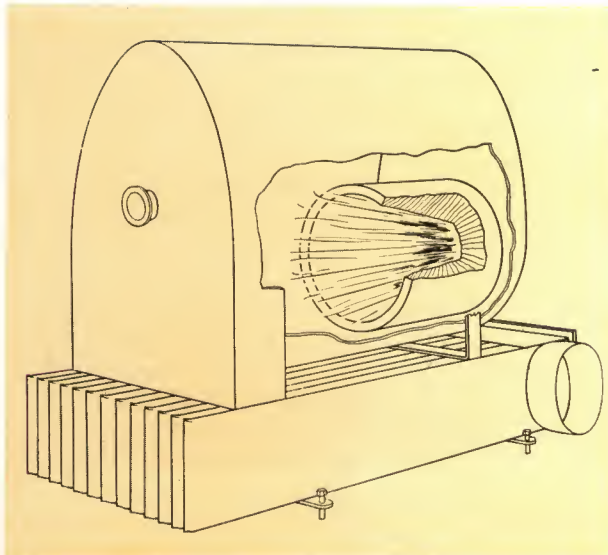
The Tempered-Aire burner is designed to burn the heavier grades of fuel oil, because these grades are low in price, yet contain the greatest number of heat units (B.T.U.) per gallon.

#### THE TEMPERED-AIRE FURNACE

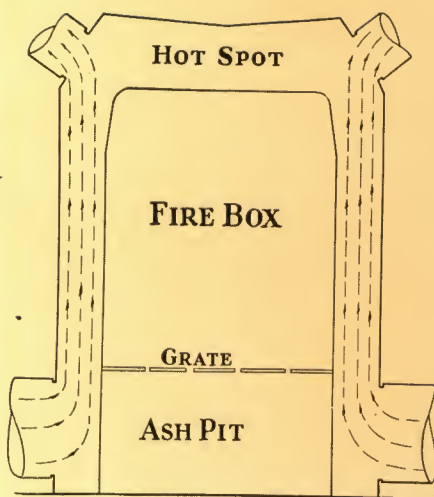
The slow, soaking process of heat absorption achieved by drawing the hot gases down through the firebox and economizer has been described on page 5. The design of the Tempered-Aire firebox also contributes much to Tempered-Aire efficiency and is especially noteworthy for its shape and its wall construction.

When the flame leaves the refractory firebowl, it expands into the giant firebox, which is so shaped that the live flame does not touch the walls at any point.

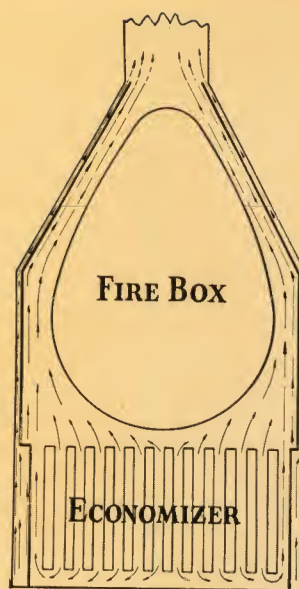
The Tempered-Aire firebox







Conventional Design



Tempered-Aire Design

This makes it unnecessary to line the walls of the firebox with fire brick in order to prevent damage by the flame. Compare this with designs where the flames lap the side walls, in which case the excessive heat would soon deteriorate the metal. In some designs, the side walls are lined with fire brick and are therefore insulated, whereas the purpose is to transfer heat. In the Tempered-Aire, there is no need for fire brick, because of the coordinated design of oil burner and firebox. This is still another advantage of Tempered-Aire unit-engineering as against the common practice of adapting oil burners made by one manufacturer to furnaces made by another.

#### THE TEAR DROP FIREBOX

The tapered shape of the firebox also has an important engineering reason. In ordinary furnace design, the crown sheet (or top) of the firebox is the full width of the firebox and the air to be heated rushes up the sides of the furnace without passing over the top, leaving an overheated "hot spot" on top of the firebox (see illustration). This "hot spot" is almost completely useless for heating purposes.

Note that the Tempered-Aire crown sheet is at the greatest possible distance from the flame and the sloping sides reduce the width of the crown sheet to a few inches. The sloping sides of the casing conduct the air clear to the top, thereby carrying away the heat and avoiding the "hot spot." The Tempered-Aire has a double casing. Cool air from the blowers enters through two trunk

ducts, one on each side at the bottom of the furnace. It passes first through the economizer and then up between the two casings. The inner casing absorbs the radiant heat from the firebox. This heat is carried away and delivered to the plenum chamber above the furnace by the air passing between the two casings.

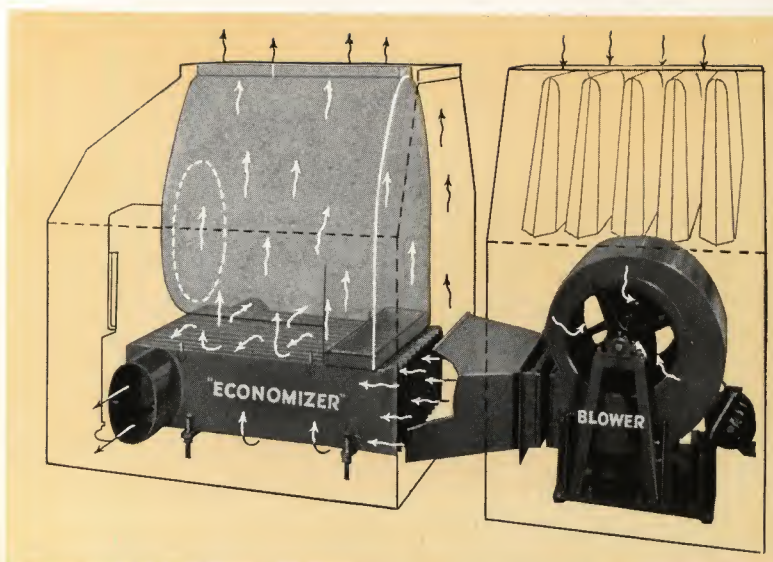
In the conventional furnace, the space below the grate is the ashpit and therefore not heating surface. Below the corresponding level in the Tempered-Aire is located the economizer, which contains three times as much heating surface as the firebox. Consequently, below the same line as the grate level is located three-fourths of the Tempered-Aire heating surface. This explains why the Tempered-Aire

has three times as much heating surface as a conventional furnace of the same external dimensions.

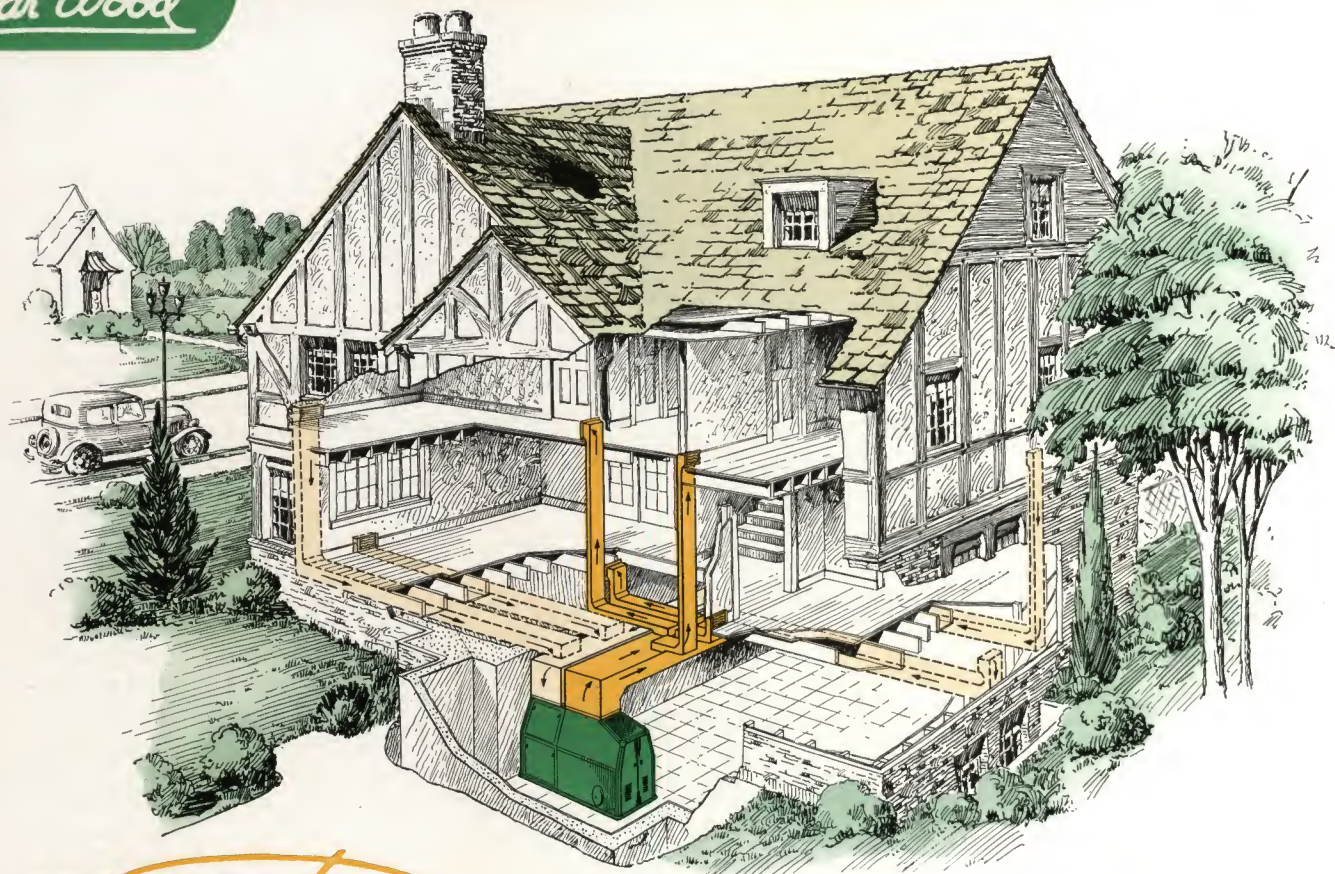
#### THE COUNTERFLOW PRINCIPLE

The first heat of combustion is radiated through the walls of the firebox. The economizer tubes take up the remaining heat. To capture this lesser heat, cool air must be used. That is why the cool air from the blower passes first over the economizer tubes and then over the hotter surfaces of the firebox walls. The heat and the air to be heated flow in opposite directions. This counterflow principle is recognized by heating experts as the most efficient means of achieving heating economy that has yet been discovered.

The air from the blower is discharged at high velocity into the spaces between the economizer tubes. This makes the inner tubes as effective as those outside.







FITTING

# *Tempered-Aire* TO YOUR HOME

**N**O MATTER how good an air-conditioning apparatus may be, it can be ruined by faulty installation. The flow of air to and from each room must be nicely calculated and the duct system exactly built to insure the proper air delivery at all times and under all weather conditions.

Gar Wood Industries assume complete responsibility for the correct functioning of your Tempered-Aire; they do not shift this responsibility to local architects, builders or sub-contractors, neither do they divide it with other manufacturers.

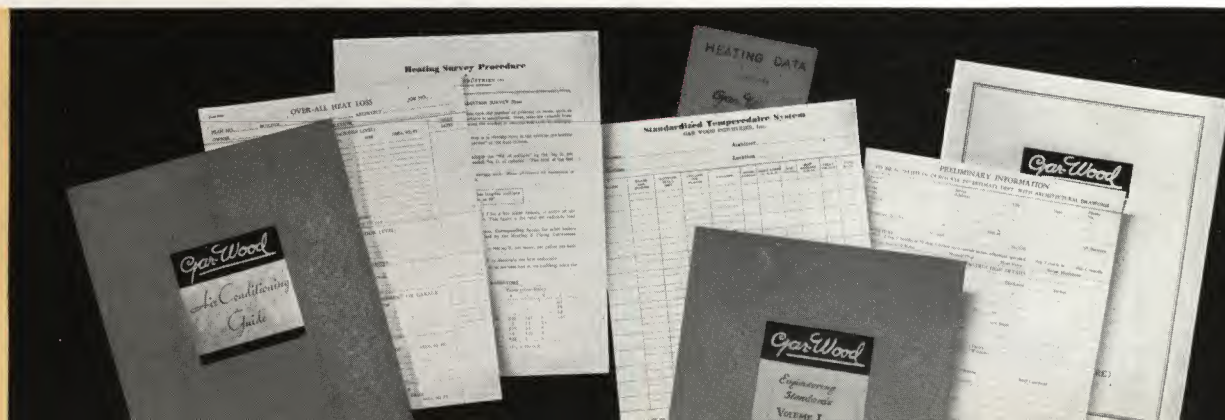
Tempered-Aire is the only air-conditioning system that is designed and built complete, from oil burner to ducts, in one factory. And Gar Wood Industries are the only manufacturers who exercise complete

supervision over installation and over owner maintenance service after the installation has been made.

## ENGINEERING SERVICE

Through a complete system of factory branches and distributors, Gar Wood engineering service is made available for your home. Our field inspectors measure your home, and fill out a series of forms designed for the purpose. From these facts and figures, our engineering staff make the layout for your individual installation. Our field men then actively assist the architect and contractor who install the system and test the results in each room after installation.

The work proceeds with remarkable speed and accuracy, because it brings factory methods to field







**T**EMPERED-AIRE offers home owners the widest opportunity for utilizing the basement for extra living or recreation rooms. It may be placed wherever you want it—in a corner or along the wall, or built into a little room of its own.

Tempered-Aire has no network of exposed pipes. Everything fits neatly into the building frame and may be plastered over or covered with wall-board, if desired.

It makes no dust, dirt, smoke nor odor. It achieves new heights in health and luxury and makes any house a better home.

installations. It eliminates costly hand labor and guards against costly errors. And it gives you scientific air-conditioning throughout your home.

#### THE PRE-FABRICATED DUCT SYSTEM

Only Tempered-Aire has a standardized, prefabricated duct system, built to conform to standard building practice and measurements. This system is without doubt the most important contribution ever made by any manufacturer to the practical application of scientific air-conditioning to domestic use.

All ducts and fittings are made in standard sizes to fit in between joists and studdings, so that all ducts are concealed except the trunk line. This not only makes for improved appearance, but for speed in erection, because every Gar Wood branch can furnish these standard parts from stock and little or no cutting is required to fit them to the building frame.

These factory-built parts are stronger and better,

because they are electrically welded and are more uniform than hand-made parts can be.

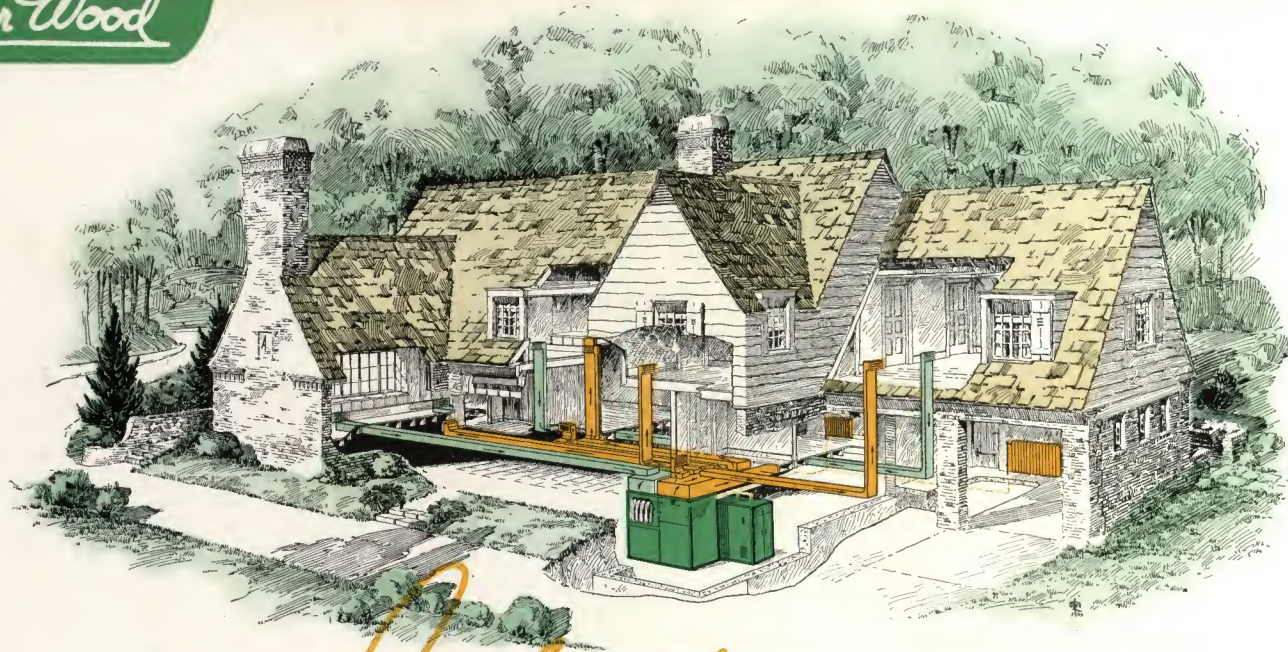
Even the trunk lines are made from standard parts, which effects a great saving in time and money. The ordinary practice is to take measurements for a "tailor-made" trunk line and to make it by hand in the local tin shop. This consumes extra time and requires highly skilled, high-priced hand labor.

The Tempered-Aire standardized ducts and trunks are all installed at the same time, whereas ordinary practice is to install them at two different stages of the building operations, which frequently causes loss of time and extra expense.

Thus, from every standpoint of accuracy, strength, ease and simplicity of installation and the saving of time and money, the Tempered-Aire standardized duct system offers to home owners, architects and builders a number of outstanding advantages which have hitherto been unattainable.







## *Indirect* SYSTEM OF AIR CONDITIONING

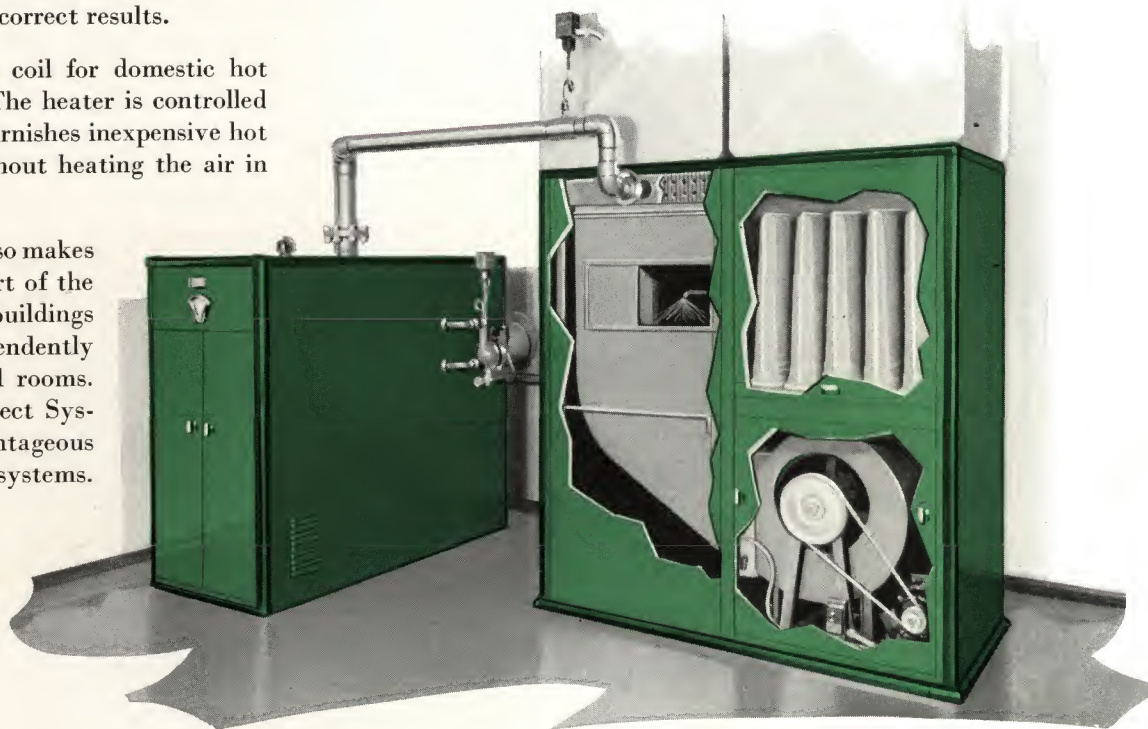
**T**HE Gar Wood Indirect System differs from Tempered-Aire in that the air is warmed by a steam coil fed from a boiler. Air filters, blower unit and duct systems are the same and the same principles of extracting the heat from low cost fuel oil are employed. As a result of efficient design approximately 90% of the heat generated is used.

These indirect units humidify the air with a water spray, simply because this method is more logical in connection with a boiler. Both methods are equally effective in achieving correct results.

The installation of a coil for domestic hot water is customary. The heater is controlled by an aquastat and furnishes inexpensive hot water in summer without heating the air in the living rooms.

The indirect system also makes it possible to heat part of the rooms or detached buildings with radiators, independently of the air-conditioned rooms. This makes the Indirect System extremely advantageous in remodeling heating systems.

Gar Wood boilers apply the principles of high pressure power boilers to the domestic heating field. They are designed entirely for oil burner service, in which respect they differ radically from ordinary domestic boilers. The fire boxes are lined with refractory material, which increases the temperature in the combustion chamber, improves the combustion of the fuel and permits the use of low cost fuel oil. The heating surface of these boilers is concen-







trated chiefly in the flues, which assures absorption of a high percentage of heat from the gases before they enter the chimney.

Cutaway view shows the heat travel in the Model R boiler. Oil burner fires at the bottom and the hot gases are reversed back over the flame and along the bottom of the boiler, again reversing to pass through the fire tubes before entering the chimney.

● This view shows the efficient use of heat in the Model R boiler-burner unit, which supplies the heat for the Gar Wood Indirect-Air conditioning system. The cabinet is finished in green lacquer. This unit is used in connection with the air-conditioning cabinet, shown on the opposite page, and may be located close to it or at any convenient distance, as desired.

## GAR WOOD BUILDS HEATING EQUIPMENT FOR EVERY HOME REQUIREMENT

● The Model W Conversion Burner, one of a complete line of Gar Wood oil burners for use in coal-fired heating plants. Burns low-cost fuel oil. Noiseless, efficient and fully automatic. Other Gar Wood conversion burners ranging in capacity from 412 to 2400 square feet of net steam radiation are available.

● The Model Q oil-burning water-heater, for estates, swimming pools, clubs and wherever large quantities of hot water are needed. Operates in most localities for about half the average cost of gas and is cheaper than coal, attendance considered. Fully automatic. May be used singly or in series.

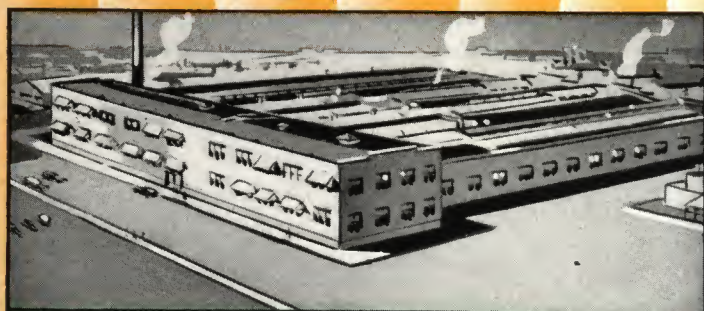




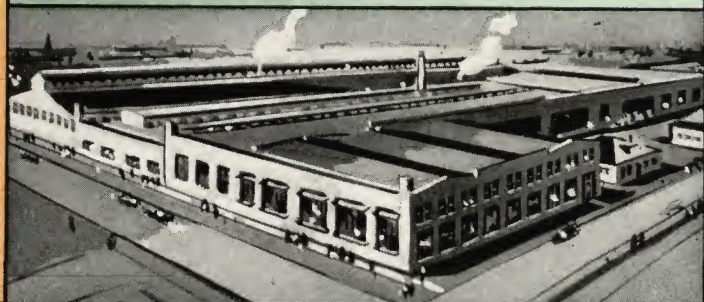
OWNERS SAY: "GAR WOOD OIL HEAT COSTS LESS THAN COAL"



★  
**GAR WOOD INDUSTRIES**  
INC.  
★  
AIR CONDITIONING DIVISION  
DETROIT, MICHIGAN  
U. S. A.



These two views show the factories, in which Gar Wood oil burners and air conditioning systems are designed and built complete.





THE CATALOG OF  
**JOHNS-MANVILLE**

# BUILDING MATERIALS





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# *Announcing*

## **The "20-YEAR AHEAD" HOME**

### **featuring the Johns-Manville principle of "TRIPLE INSULATION"**

Looking back from 1929 over the past 100 years, it became obvious that very little had been done to improve the structural building materials used to protect the moderately-priced home from fire and the elements. Recognizing the inherent weaknesses of many of the materials commonly used in the past for this purpose, the engineers of the Johns-Manville Research Laboratories attacked the problem. Their development work was based on the principle that the ideal achievement would be a completed wall and roof structure, at a reasonable price, which would permanently resist the ravages of time and weather; which would protect against destruction by fire; and which would stand as a barrier to the passage of heat and cold . . . without sacrificing architectural beauty on the outside or decorative possibilities within. In other words, a method of construction that literally provided a Triple-Insulated House!

Today, maintenance-free materials having these qualities are actually available. In studying the following pages, you will note how each Johns-Manville material, as used in the J-M Triple-Insulated House, contributes to the construction of better and more modern homes!



# JOHNS-MANVILLE BUILDING MATERIALS

# TRIPLE INSULATED

- *Fortified against Hot and Cold Weather*
- *Protected against Fire*
- *Armored against Time and Deterioration*

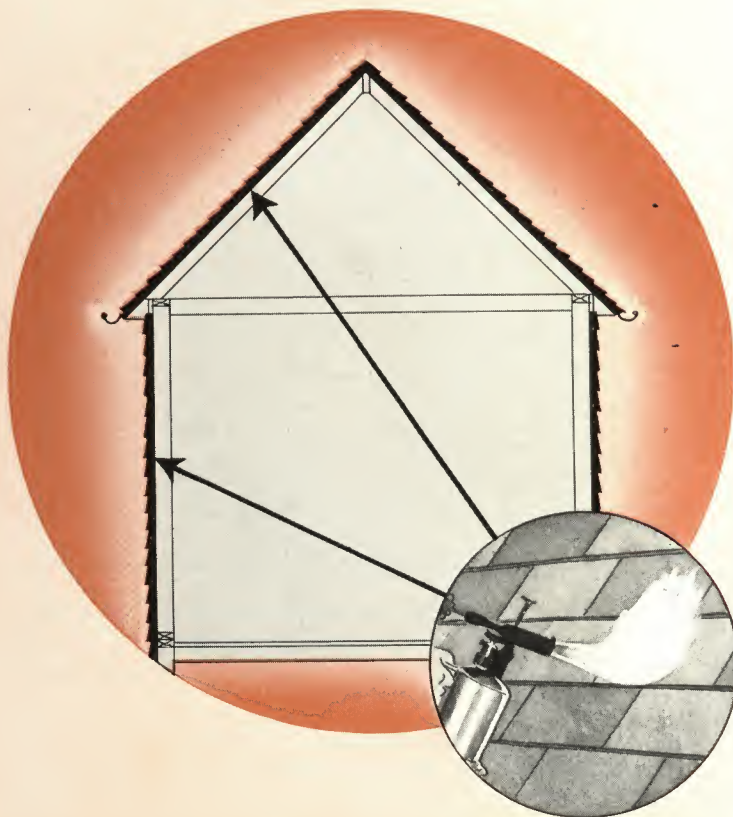
THE diagrams on this page illustrate how Johns-Manville Asbestos Shingles for the roof and the side walls; J-M Rock Wool Home Insulation in the hollow wall spaces and in the attic; and plaster walls and ceilings fortified with Johns-Manville Steeltex combine to provide true Triple Insulation. All these materials with their fire-proofness, their permanence, their freedom from

maintenance and their comfort giving values, offer a type of construction that is equally adaptable to the cottage and to the mansion, and within the reach of everyone.

By studying these illustrations, you will see why the three points of better construction found in the Johns-Manville Triple Insulated House insure a new standard of quality in home building.

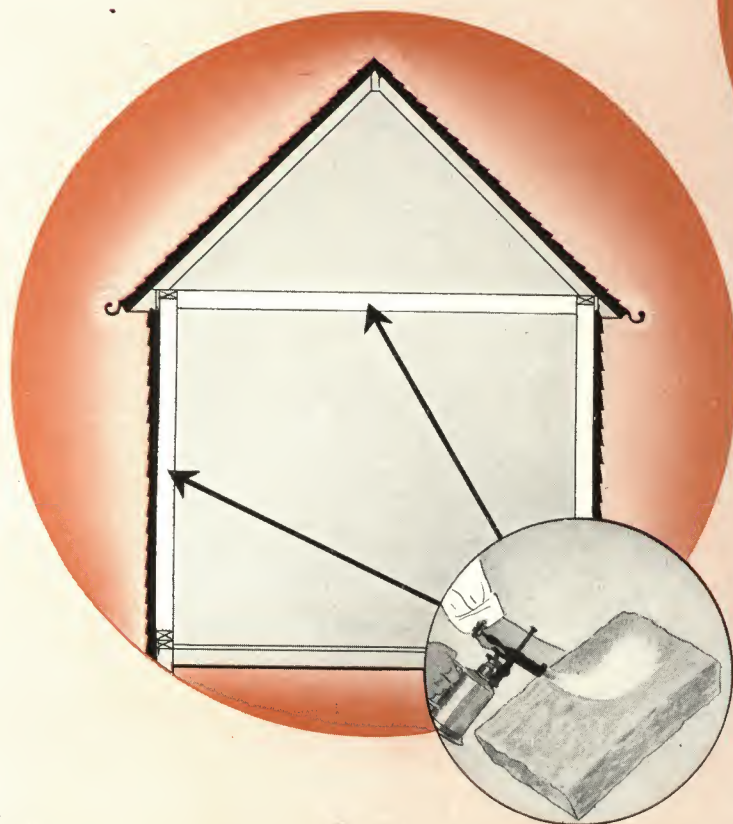
●  
The complete outside covering of the Triple Insulated House, the roof and exterior side walls, are J-M Asbestos Shingles and Siding. This everlasting material cannot burn, rot or corrode, will never wear out, and will eliminate the need for spending money for paint to protect it.

See pages 18-25 in  
Catalog of J-M Building  
Materials



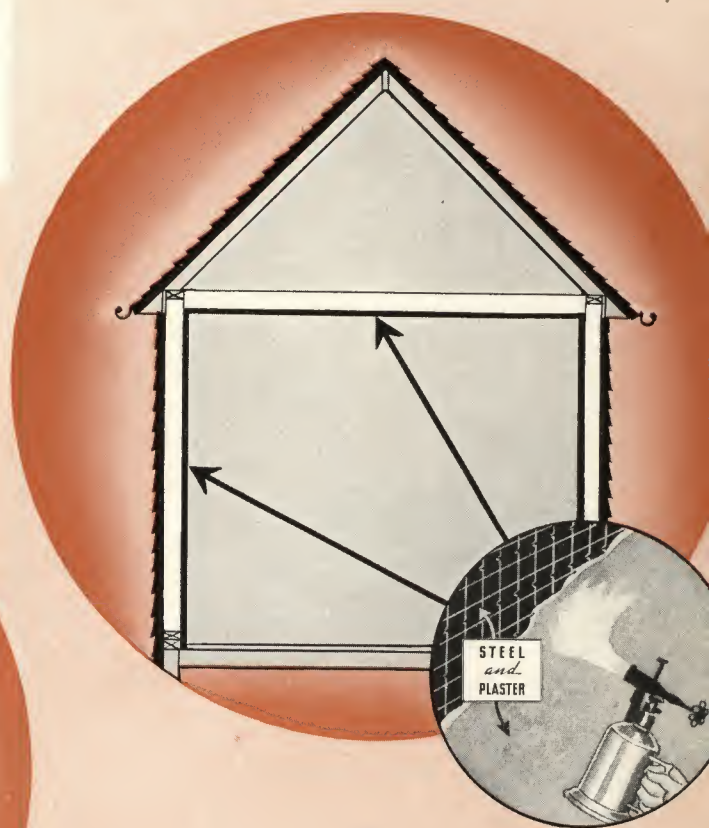


# PROVIDE — FOR THE FIRST TIME — A HOUSE . . .



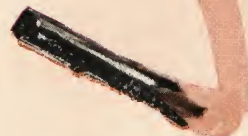
The hollow spaces between the plaster and outside walls and under the roof are filled with J-M Rock Wool Home Insulation, the most efficient insulation for the home that science has developed. This fireproof material will stop the spread of fire. It also will keep the house unbelievably cool in summer, and save as much as 30% on fuel bills in winter.

See pages 16-17 in  
Catalog of J-M Building  
Materials



The interior plastered walls are reinforced with J-M Steeltex, a patented construction that will withstand even the flame of a blowtorch. Built on the same principle as reinforced concrete, it reduces to a minimum the expensive maintenance and dreaded plaster cracking that are so common to ordinary types of plastered walls.

See page 15 in  
Catalog of J-M Building  
Materials



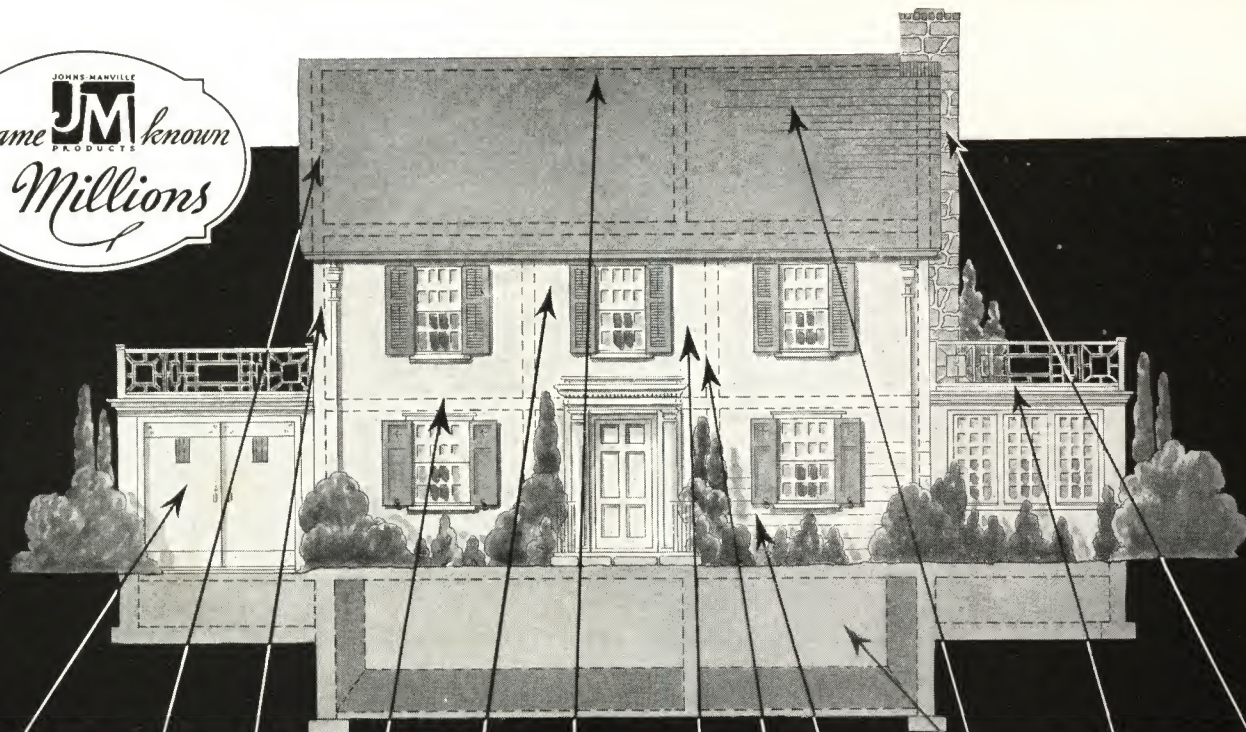


JOHNS-MANVILLE



PRODUCTS





Standard  
Flexboard  
for fireproof walls  
and partitions

Roof  
Coatings  
and  
Putties

Home  
Insulation

Insulating  
Board - for  
economical  
remodeling

Insulating  
Board -  
for sheathing  
and Plaster  
Base

Insulating  
Board - for  
finished attics  
and basement  
rooms

Steeltex  
for  
plaster, stucco,  
brick or stone  
Veneer, etc.

Siding  
Shingles -  
asbestos or  
asphalt -

Ready to lay  
Roofings  
asbestos or  
asphalt -

Asbestos  
Wainscoting -  
for "tiled" walls  
in bathrooms, kitchens  
laundries, etc.

Shingles -  
asbestos or  
asphalt -

Decorative  
Asbestos  
Flexboard

Building  
Papers and  
accessories

Hard Board -  
for decorative  
and structural  
uses

A picture such as this is needed to reveal the many places in which one or more Johns-Manville materials can be used in the construction of better and more comfortable homes, and in the modernization of homes already built. These materials, however, are not designed for residential use alone, for every office, store, factory, and public building offers a ready field for each one of them. All these materials are fully described on the following pages, and are available through the Johns-Manville Dealer in your neighborhood.



# JOHNS-MANVILLE INSULATING BOARD PRODUCTS

for interior structural and  
decorative use



## J-M STANDARD INSULATING BOARD SHEETS

Size, 4 feet wide x 4, 5, 6, 7, 8, 8½, 9, 9½, 10, and 12' long; ½", ¾", and 1" thick. Also in sheets 8' x 6', 8' x 8', 8' x 10', and 8' x 12'; ½" thick.

## J-M CAP MOULDING

For use with J-M Bevel Plank, Wainscoting Panels and Ashlar Strips. 2½" x 8' x ½" thick. Face sanded. Packed in cartons of 36 pieces.

## J-M BASE

For use with J-M Bevel Plank, Wainscoting Panels and Ashlar Strips. 5" x 8' x ½" thick. Face sanded. Packed in cartons of 18 pieces.

## J-M BATTEN STRIPS

For use in covering joints. Furnished in widths of 2, 2½, and 3" x 8, 10, and 12 feet long. ½" thick. Face sanded.

Johns-Manville Insulating Board is a knotless, grainless, all-wood fibre board that possesses great strength. Because it is made in large units and is so easily applied, it simplifies the construction, modernization and decoration of all types of interiors. This versatile board is made in the variety of forms and finishes shown on these pages.

The natural color of J-M Insulating Board is a pleasing buff that harmonizes with practically any decorative scheme. For this reason, as well as for economy, it is often applied without paint or other finish. Where special effects are desired, it can be painted or stained to suit. It yields readily to cutting with beveling tools, and can be decorated in this manner right on the job. (For harder, denser materials, see J-M Hard Board and PanLboard, shown on page 8.)

J-M Insulating Board products are ideal for remodeling and improving all types of homes and commercial buildings. Practically all styles are available treated to resist fire. The characteristics of this new non-inflammable material are described on page 14.

## Standard Sheets

Wherever a partition or room must be built, and wherever else construction costs must be held to a minimum consistent with durability, J-M Insulating Board in standard sheets,



## J-M BEVEL PLANK (Plain)

Sizes, 6, 8, 10, and 12" wide x 8, 10, and 12' long. ½" thick. (16" width on special order.) Face sanded. Diagonal bevel joints on long edges. Furnished as follows: 8', 72 sq. ft. per carton; 10', 90 sq. ft. per carton; 12', 108 sq. ft. per carton. Beaded style illustrated with special cap cut from standard material.



## J-M BEVEL PLANK (Beaded)



## J-M ASHLAR STRIPS

Size, 6" x 4'. Thickness, ½". Face sanded. Diagonal bevel joints. 36 pieces, 72 sq. ft. per carton.



## J-M WAINSCOTING PANELS

Size, 18" wide x 4' high by ½" thick. Face sanded. Diagonal bevel joints. 12 pieces, 72 sq. ft. per carton.

All materials on this page also available in non-inflammable form, except ¾" thick material.



4 feet wide and up to 12 feet long, fills every requirement. (8' x 12' available on special order.) Joints may be beveled, or concealed with battens.

## Decorative Forms

**Bevel Plank (Regular and Beaded), Bevel Tile, Multiple Bevel Tile, Ashlar Strips, Wainscoting Panels**

The decorative forms of J-M Insulating Board feature two pleasing random plank effects—(1) J-M Bevel Plank, which resembles wood plank with beveled edges, and (2) J-M Beaded Bevel Plank, which has grooves on each side of the joints.

Another popular effect is that of J-M Bevel Tile—Beveled Insulating Board made in a wide variety of standard sizes. With these tile, it is possible to create any number of interesting wall treatments. There are five attractive textures: Natural, Sanded, Medium Fabric, Coarse Fabric, and Wicker, all shown below.

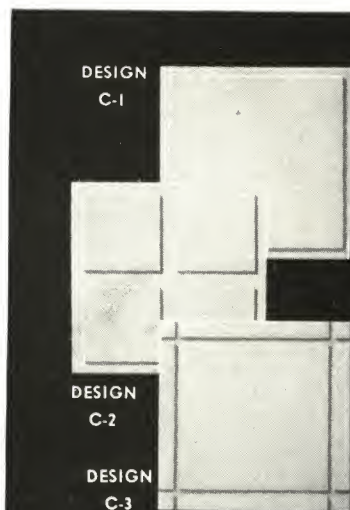
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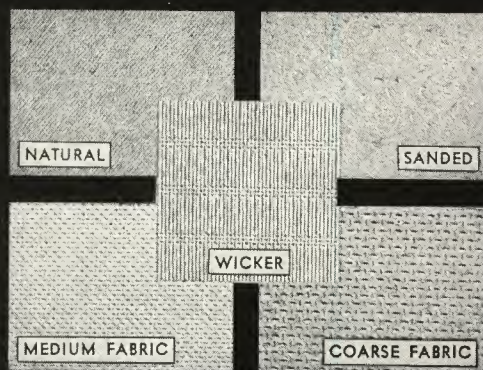
These 'before and after' pictures show how an old attic can be made into a useful room, using J-M Insulating Board.



The modern effect of this attractive basement room has been achieved largely through the use of beveled panels of Insulating Board. Compare this effect with the one shown at the bottom of page 6.



**J-M DECORATIVE CEILING TILE**  
Sizes, 16" x 16", and 24" x 24".  
1/2" thick. Face sanded. Three designs, C-1, C-2, C-3.  
16" x 16"—60 pcs. per carton.  
24" x 24"—30 pcs. per carton.



Textures of Bevel Tile, shown greatly reduced

### J-M BEVEL TILE

Sizes, 6" x 12", 8" x 8", 8" x 16", 12" x 12", 12" x 24", 16" x 16", 24" x 24", 16" x 32", 18" x 32", 18" x 48", and 24" x 48"; 1/2", 3/4", and 1" thick. (Wicker finish available only in 12" x 12", 16" x 16", and 24" x 24", 1/2" thick. Medium Fabric and Coarse Fabric, 1/2" thick only.)

All edges beveled and shiplapped, except the 6" x 12" size in all finishes and except the Wicker finish in all sizes, which are beveled only.



### J-M MULTIPLE BEVEL TILE

At top: Size, 24" x 24" (V-grooved to 8" x 8", and 12" x 12"); also 24" x 48" (V-grooved to 8" x 8", 12" x 12", and 12" x 16"); also 16" x 32" (V-grooved to 16" x 16"). Below: 12" x 12" (V-grooved to 6" x 12"). All sizes 1/2", 3/4", and 1" thick. Face sanded. All edges beveled and shiplapped, except on 12" x 12", which is beveled only.

### J-M BORDER STRIPS

Special unit for 'framing' ceiling designs. Size, 12" x 8" x 1/2" thick. Face sanded. Long edges beveled and shiplapped.

All materials on this page also available in non-inflammable form, except 3/4" Multiple Bevel Tile, and Medium Fabric, Coarse Fabric, and Wicker Bevel Tile.





*A reception room in a funeral parlor, modernized with J-M Bevel Plank and Decorative Ceiling Tile.*



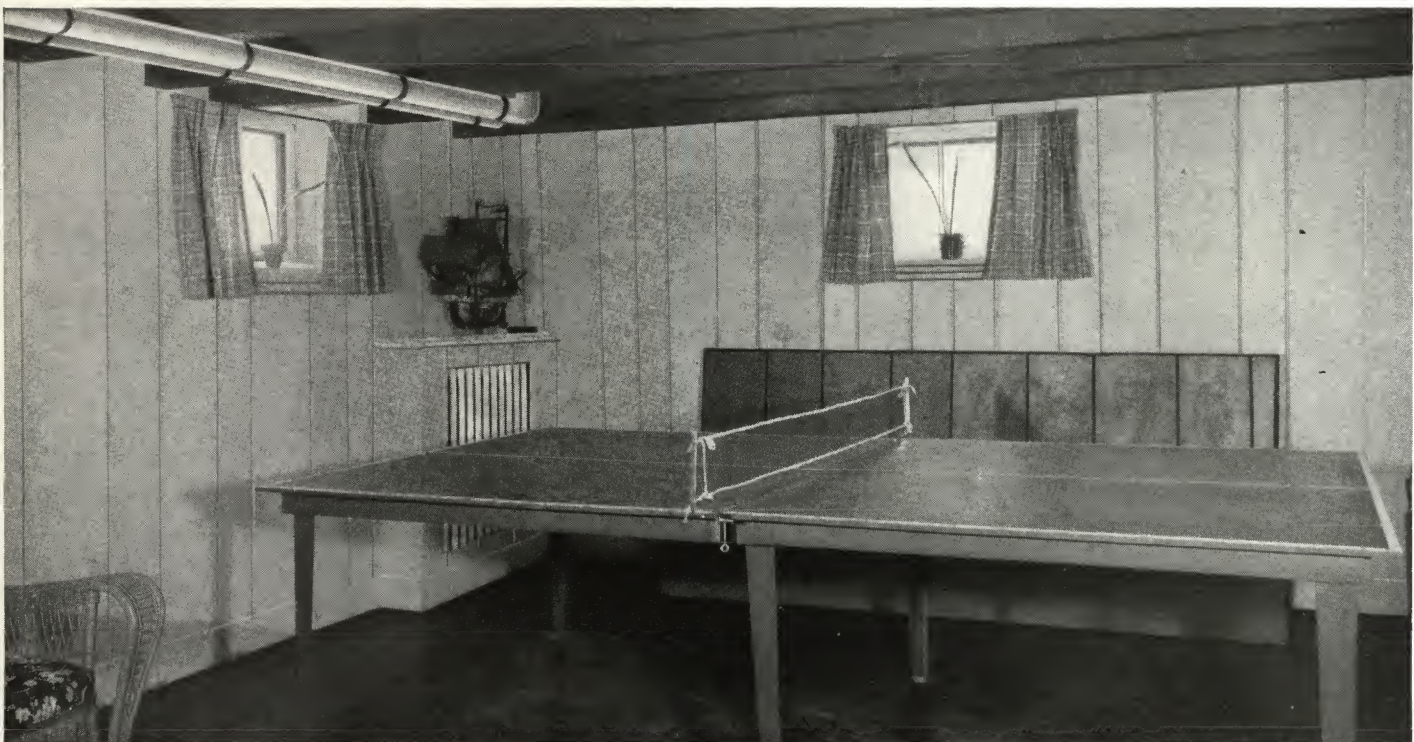
*In this modern restaurant J-M Random Width Bevel Plank was used for the walls in combination with a paneled wainscot of Insulating Board. The ceiling is of standard Insulating Board sheets, over which wood strips were applied in a decorative pattern.*



*An Early American living room, entirely Colonial in effect, yet achieved with a modern material—J-M Insulating Board.*

To supply ready-made wall and ceiling designs, Johns-Manville has developed J-M Multiple Bevel Tile, which is Insulating Board in large pieces, already beveled into attractive patterns. Additional effects may be obtained by cutting bevels, grooves, borders, and special designs in standard Insulating Board sheets. Other factory-cut designs are the Ashlar Strips and Wainscoting Panels, illustrated on page 4.

These J-M Decorative Insulating Board products are suitable not only for permanent installations, but also for temporary uses such as window backgrounds and displays.



*A typical basement game room, such as anyone would want to own. Easily constructed with J-M Insulating Board in Bevel Plank design*





*The very delightful room shown above, is part of an old "slave cabin," which was recently remodeled. In constructing the walls and sloping ceilings, standard sheets of Insulating Board were used.*

**A new Insulating Board development—  
J-M DECORATIVE CEILING TILE  
—for new work and low-cost remodeling**

A new and important form of J-M Insulating Board is the Decorative Ceiling Tile, which is identically the same as the wall material, except that it is furnished in sizes convenient for overhead work. It is furnished in three distinctive designs, C-1, C-2, and C-3 (shown on page 5). These new tiles have all the qualities necessary for decorative ceiling treat-



*Before and After: The question of expense has hindered many home owners from repairing old, cracked ceilings. Now, with J-M Decorative Ceiling Tile, an attractive ceiling finish can be applied right over the old plaster, at a fraction of the cost of re-plastering.*

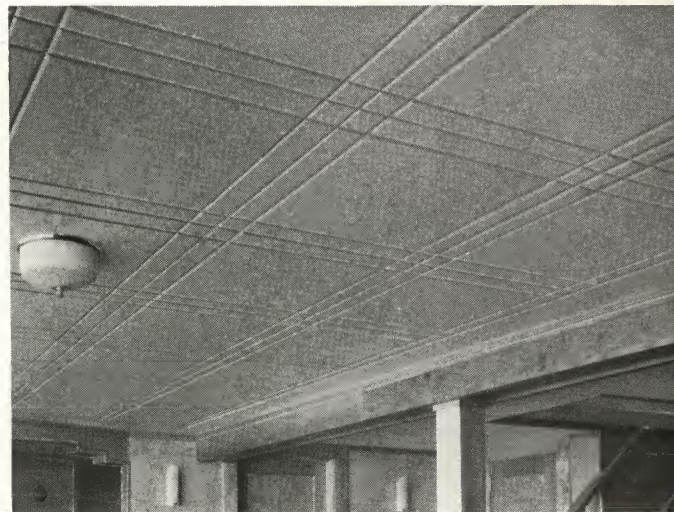


*Even everyday offices can be made attractive at small cost. This office, for instance, has a wainscoting of J-M Ashlar Strips with standard Insulating Board sheets above it. Joints are covered with J-M Batten Strips.*

ments. In the construction of attic and basement rooms they provide finished ceiling effects without the need for paint or kalsomine. And in offices, shops, and stores they are a pleasing change from metal ceilings.

In existing rooms they can be applied right over the old plaster or metal ceilings (no matter how bad the condition) at a fraction of the cost of replacement, and without losing the use of the room for any considerable time.

J-M Multiple Bevel Tile is also excellent for ceilings. Made in a variety of attractive designs, and furnished in large pieces ranging up to 24" x 48", this new material brings the cost of new or remodeled ceilings still lower.



*An exceedingly attractive ceiling of J-M Decorative Ceiling Tile, design C-3, used in a basement recreation room.*

**J-M ASPHALT TILE FOR BASEMENT FLOORS**

For sub-grade flooring work, the recommended type of covering is asphalt tile. When you are called upon to floor a basement, your Johns-Manville Asphalt Tile Flooring Contractor will be able to supply you with a floor that is decorative as well as utilitarian.



# J-M HARD BOARD PRODUCTS

**Decorative, structural sheet materials of unexcelled strength, hardness, toughness and rigidity. Natural tan and brown colors—burled finish**

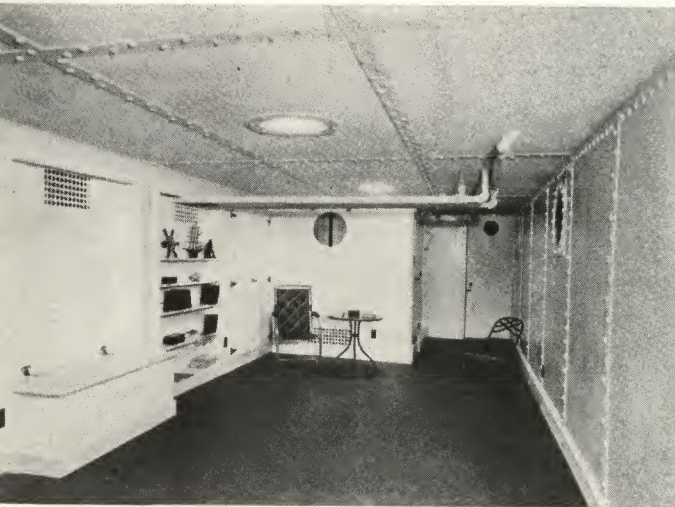


*This decorative panel, made of Standard and Tempered Hard Boards, illustrates the workability of these materials.*

J-M Hard Board is a hard, dense, all-wood fibre board—so strong that it can be used for lining concrete forms, and yet so decorative that it is used as wall treatment in the finest homes. It has a natural color and finish which are ideal for interior decorative purposes, without further treatment.

This new board will not warp, crack, split, or splinter. Its hard, glossy surface is remarkably resistant to abrasion. It is so resistant to moisture that it can be used out of doors with practically no additional finish. Yet despite these characteristics of strength, it works easily under ordinary carpenters' tools.

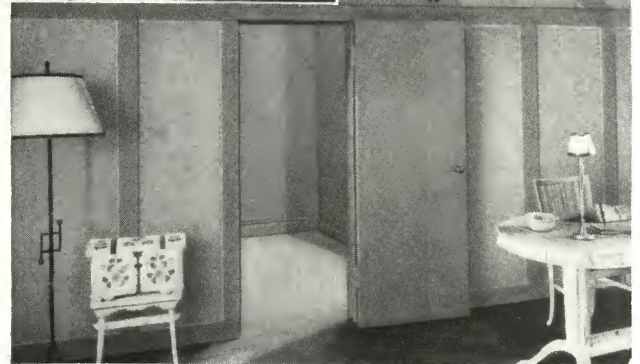
Where an even harder, stronger, more rigid sheet is desired, J-M provides Tempered Hard Board, which also has a richer color and a glossier finish. Either style can be painted, stained, varnished, lacquered, enameled, or waxed. The Tempered Hard Board does not require a priming coat before painting.



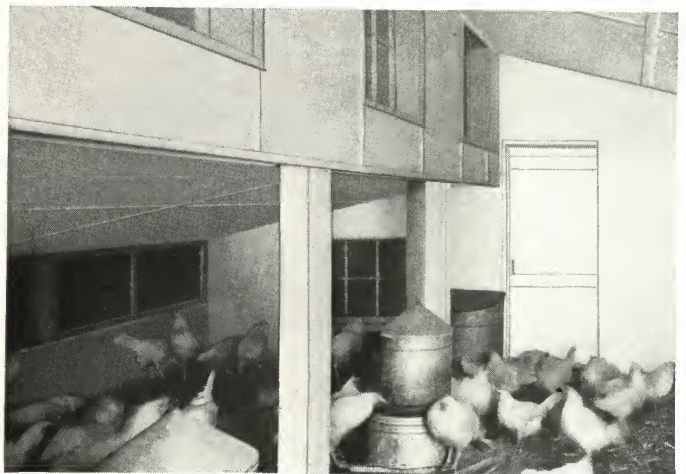
*J-M Hard Board was chosen for the walls of this basement room, because it not only is strong, but also is a fine base for paint.*



*J-M Hard Board can be used for construction out of doors. Because it is highly moisture resistant, it requires little additional finish.*



*J-M Hard Board is handy for countless uses. Practically anything can be constructed more easily with this material.*



*On the farm, J-M Hard Board is ideal for use in poultry houses, hog houses, and chicken range shelters, and for bins, shelves, and interior walls.*

## J-M Standard and DeLuxe PanLboard

For uses where the exceptional strength and density of Hard Board are not required, Johns-Manville supplies two economical boards, known as Standard and DeLuxe PanLboard.

### Partial list of uses

PANELING  
PARTITIONS  
TABLE TOPS  
SCREENS

TOYS  
SHELVING  
FURNITURE  
BOOK CASES  
PLAY HOUSES

COUNTER TOPS  
STORE COUNTERS  
SAND BOXES  
BOATS

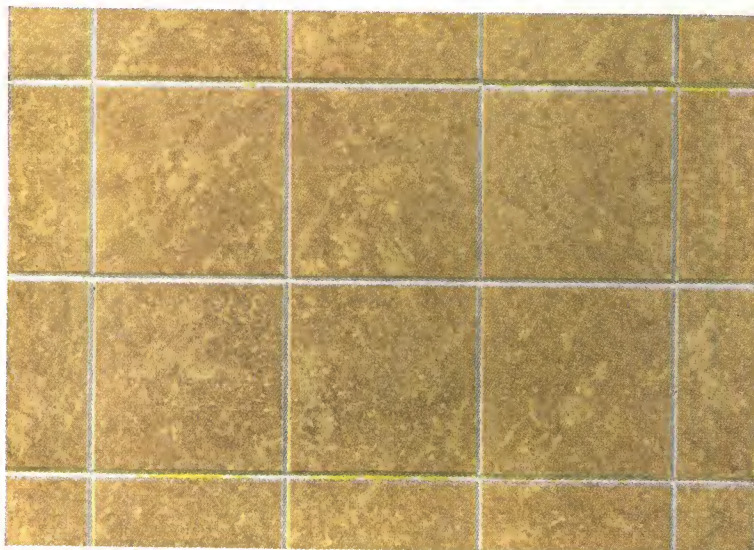
J-M Hard Board and Tempered Hard Board—Furnished in  $\frac{1}{8}$ " and  $\frac{1}{16}$ " thicknesses, in sheets 4 feet wide x 1, 2, 3, 4, 6, 8, 9, 10, and 12 feet long; also in  $\frac{1}{4}$ " and  $\frac{5}{16}$ " thicknesses, in sheets 4 feet wide x 12 feet long.

J-M Standard and DeLuxe PanLboard—Furnished in  $\frac{1}{4}$ " thickness, in sheets 4 feet wide x 1, 2, 3, 4, 6, 8, 9, 10, and 12 feet long.





**GREEN** *A popular color for kitchens in the home. Restful to the eyes, and a pleasant background. Equally attractive in the Plain Design.*



**BUFF** *Another admirable shade that is both light and cheery. It is often used in combination with one of the other Flexboard colors.*

## JOHNS-MANVILLE ASBESTOS FLEXBOARD

A flexible asbestos-cement sheet that can be sawed and nailed like wood. A fireproof, rot-proof, permanent material that can be installed in either decorative or standard finish at remarkably low cost.

J-M Asbestos Flexboard is a fireproof, permanent asbestos-cement sheet, so flexible that it can be made to conform to surfaces having a considerable curve; so workable that it can be sawed and nailed like wood; and so easy to handle that it can be applied as quickly and easily as any fibre board. Because of all these advantages, and because the material itself is so inexpensive, jobs done with J-M Asbestos Flexboard are amazingly low in cost.

J-M Asbestos Flexboard is made in two styles: one designed to provide colorful, sanitary, decorative wall finishes in homes, offices, stores or public buildings; the other to fill a wide range of utilitarian uses.

(Continued on next page)



*This photograph illustrates the remarkable flexibility of 1/8" J-M Flexboard.*

*All these colors are available in both the Plain and the Tile Designs. Recently introduced, but not illustrated, is a new Light Gray color of unusual adaptability and charm.*



**ROSE** *Provides an exceptionally rich and distinctive finish. Goes well with polished metal trim.*



**SLATE** *Has a remarkable resemblance to the tone of genuine slate. Well adapted as an accent color.*





The interior of this New York City flower shop was entirely modeled with J-M Standard Flexboard, even to the ceiling and the cashier's cage. To add lustre to the effect, the Flexboard was then varnished.



The entire interior of this plant (walls, ceiling, and elevator shaft) is constructed of J-M Standard Flexboard.



For laundries and bathrooms, Johns-Manville recommends the use of Standard Flexboard, which is to be enameled or varnished on the job, in colors of the owner's selection.

## J-M STANDARD FLEXBOARD

For a wide range of utilitarian uses

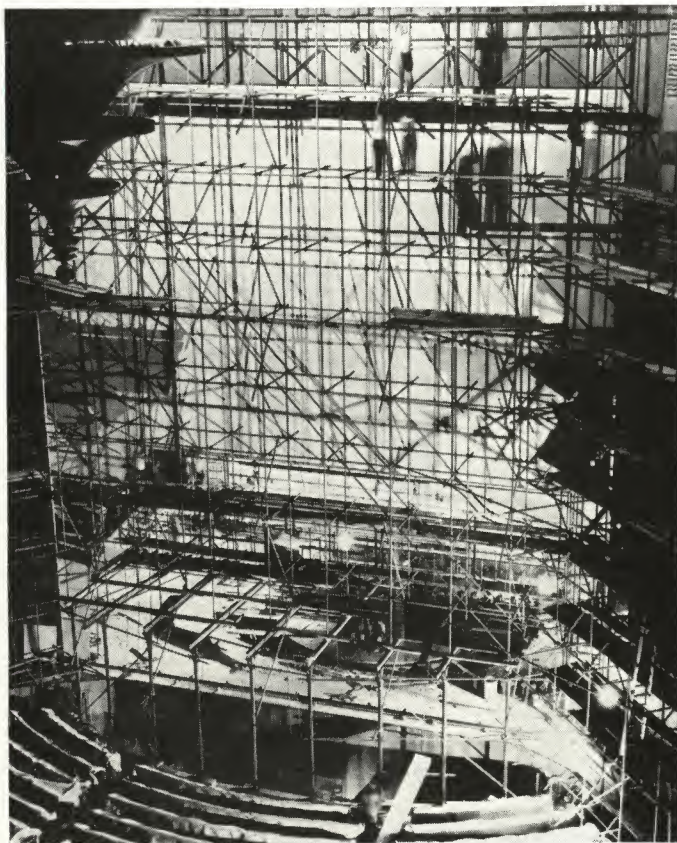
J-M Standard Asbestos Flexboard is furnished in 4' x 4' x  $\frac{1}{8}$ " buff-colored sheets, scored on 4" centers, and in 4' x 8' sheets, unscored, in thicknesses of  $\frac{1}{8}$ " and  $\frac{3}{16}$ ". It is ideal for many uses, such as partitions, base boards, table tops, fireproof storage rooms, and laundries; for constructing and lining summer bungalows, roadside stands, overnight cabins, and boat houses; for elevator shafts, and fur storage vaults; for lining farm buildings such as chicken coops, brooder houses, and milk houses. Where plaster is badly cracked or falling off, the large sheets of Flexboard can be applied right over the old walls. For special tile effects, the scored sheets can be painted to suit.

Because it is made of asbestos and cement—each an imperishable mineral—there is nothing in J-M Asbestos Flexboard to rot or disintegrate, or to attract rodents or vermin. Where protection from heat or cold is wanted, J-M Asbestos Flexboard should be applied in conjunction with J-M Insulating Board or J-M Rock Wool Home Insulation. (See pages 4, 16 and 17.)

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J-M Standard Asbestos Flexboard—(Buff only)—Furnished scored (4" c-c) in sheets 4' x 4' x  $\frac{1}{8}$ ". Also furnished *unscored*, in sheets 4' x 8' x  $\frac{1}{8}$ ", and  $\frac{3}{16}$ ".

---



More than 70,000 square feet of Standard Flexboard were used in constructing the proscenium arch at the Center Theater, Radio City, N. Y. C. Flexboard was chosen because of its fireproof qualities, its strength, and its ability to take paint. Photo shows workmen bolting sheets to framework



## J-M DECORATIVE FLEXBOARD

### A distinctive finish for new and old work

For decorative use, J-M Decorative Asbestos Flexboard is furnished in plain and scored sheets,  $\frac{1}{8}$ " thick, with a factory-applied finish. Simply applying the large sheets over J-M Insulating Board in new construction, or right over the old plaster walls in existing buildings, provides a permanent wall finish that can easily be cleaned with a damp cloth. Battens and metal trim are available as described below.

### Remarkably Resistant to Wear!

### Colors Go All the Way Through!

J-M Decorative Asbestos Flexboard is so hard that it can be marred only by excessive abuse. Because the coloring is an integral part of the material itself, there is no danger of disfigurement from chipping, cracking, or crazing.

Wherever a colorful, decorative and sanitary finish is desired—in kitchens, lavatories, and laundries; in corridors, lobbies, restaurants and show rooms; in beauty shops and markets of every description, this new Johns-Manville Decorative Flexboard will save money. It is available in tile and plain design, in Green, Buff, Rose, Slate and Gray.

J-M Decorative Asbestos Flexboard—Furnished scored (4" C-C) in sheets 4' x 4' x  $\frac{1}{8}$ ". Also furnished *unscored*, in sheets 4' x 8' x  $\frac{1}{8}$ ".  
COLORS: Rose, Green, Buff, Slate and Gray.

Decorative Flexboard Battens—Furnished in Green, Rose, Buff, Slate, Gray and Black, in sizes 1 $\frac{1}{4}$ " x 4', 2" x 4', and 4" x 4'.

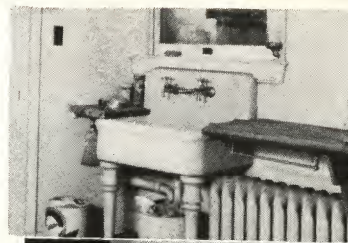
Aluminum Mouldings—For outside corners, inside corners, straight joints and cap mouldings, in 8' lengths only.



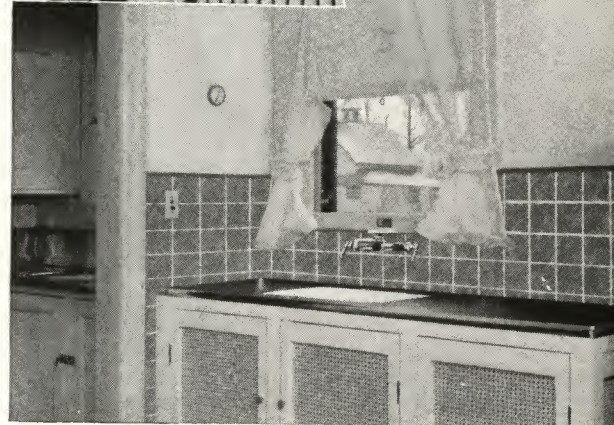
*Without its walls of colorful J-M Asbestos Flexboard, this meat shop would be dull and drab.*



*J-M Asbestos Flexboard in a dentist's office.*



*These typical "before after" views show how kitchen walls can be made colorful with J-M Decorative Asbestos Flexboard.*



*This attractive basement room has walls of Green Decorative Flexboard, backed with J-M Insulating Board. Note the curved bar front, which is also of Flexboard.*



*A typical office with walls of J-M Decorative Asbestos Flexboard.*



# J-M ASBESTOS WAINSCOTING

•

**A sheet wall material in 3 designs —  
marbleized, tile and plain**

**Colorful, sanitary, low in cost**

•

Johns-Manville Asbestos Wainscoting is a sheet wall material made of asbestos fibres and Portland cement, with a special "baked-on" finish that stands up under all normal conditions of service. It will not spot or stain, and its original freshness can be restored by a simple wiping with a damp cloth or a cleansing with soap and water.

In its three styles, Marbleized, Tile Design and Plain Design, J-M Asbestos Wainscoting provides all the appearance and advantages of tile or marble—yet it can be applied with ordinary carpenters' tools. For this reason, it is ideal both for new construction and remodeling work.

## Marbleized Wainscoting

From four of the finest quarries, Johns-Manville has selected the most perfect marble specimens obtainable, and has so authentically reproduced their surface detail that it is almost impossible to distinguish the Wainscoting



*Bathrooms, laundries, and shower stalls require a wall material capable of standing up under the action of steam and hot water. J-M Asbestos Wainscoting is especially well suited for this service. This illustration shows the Plain Design with metal joint moulds.*

from the actual marbles themselves. In foyers, banks, smart shoppes and sales rooms—wherever the effect of marble is desired—Johns-Manville Marbleized Asbestos Wainscoting answers every requirement at only a fraction of the cost. It is available in the four designs illustrated below: Verde Antique, Breche Rose, Jaune Fleuri, Black & Gold.

**VERDE  
ANTIQUE**

•

**BRECHE  
ROSE**

•

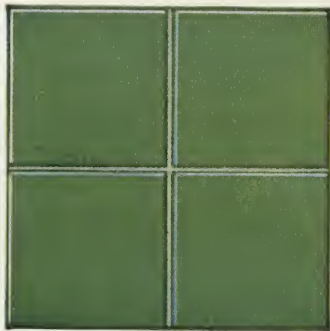
**JAUNE  
FLEURI**

•

**BLACK  
&  
GOLD**



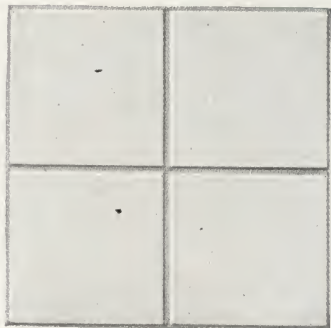




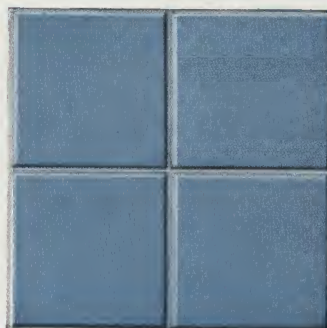
**Light Green**



**Ivory**



**White**



**Light Blue**

### Plain and Tile Designs

J-M Asbestos Wainscoting in the Plain and Tile designs has a "baked-on" surface which is the result of long experiment by Johns-Manville research engineers in collaboration with many leading laboratories. Accelerated tests indicate that this product is superior to any similar material now on the market. The colors are Ivory, Light Blue, Light Green, and White.

The Plain Design Wainscoting is like sheets of clear color, adaptable for application in keeping with many modern decorative requirements. One of the most striking effects available is obtained by covering the joints with metal mouldings (see illustration on page 12.) The cap and



*An installation of Asbestos Wainscoting in the popular Tile Design.*

base are separate, and are furnished in all four colors and in Black, rabbeted to receive the sheets.

The Tile Design Wainscoting gives the effect of 4" square tile set in soft-hued gray cement. The cap and base are furnished separate in the colors of the tile and in Black.

J-M Asbestos Wainscoting—Size 48" x 48" x  $\frac{3}{16}$ ". Weight, approximately 2 lbs. per square foot. Packed six sheets to crate, weighing approximately 200 lbs. gross. Asbestos cap ( $1\frac{1}{2}$ " x 48"), and, for marbled style (3" x 48"). Asbestos base (5" x 48") and for marbled style (6" x 48").

Standard inside and outside corner strips and straight joint strips furnished in sections 48" long. Lacquer enamel for touching up nail heads furnished in  $\frac{1}{8}$  pt. cans.



### METHODS OF APPLICATION

**Marbled Design and Plain Design:** Fastened in place with chromium screws. Can be used with rabbeted base and cap, in Black or marbled colors, or as complete wall covering. Plain Design may also be applied with special metal strips in matching colors.

**Tile Design:** Fastened by nails in holes drilled in score marks and touched up with special lacquer.





*This home has been entirely sheathed with Johns-Manville Insulating Board, even to the walls of the circular tower; for, although this board is rigid, it can be made to conform to surfaces having a considerable curve.*

## **J-M INSULATING BOARD for sheathing**

**Stronger than the best wood sheathing**

**Costs less to apply — INSULATES**

### **J-M INSULATING BOARD NOW AVAILABLE IN NON-INFLAMMABLE FORM**

At slight additional cost, J-M Insulating Board, Insulating Lath, and Roofinsul, in  $\frac{1}{2}$ " and 1" thickness, can be furnished treated to resist fire. Tests by Columbia University show that Insulating Board so treated will neither promote combustion nor carry flame and therefore does not constitute a fire hazard. When heated for 10 minutes by an air-gas blast burner at 1700° F., no flame developed from the material, nor did charring extend beyond the area directly exposed to the flame.

J-M Insulating Board greatly simplifies the job of sheathing any building. Because it is made in sheets, 4 feet wide, and in convenient lengths up to 12 feet, it enables workmen to cover large areas in much less time than ordinarily taken for wood sheathing. And because it is actually a wood fibre material, it is even more easily worked than wood.

In addition to substantially reducing labor costs, J-M Insulating Board insulates the home against heat and cold, thus providing a strong sales argument for the builder or realtor. And, because all joints center on the framing member, a wind-tight finished job is assured.

J-M Insulating Board—Size, 4 feet wide x 4, 5, 6, 7, 8, 9; 10 and 12 feet long, in  $\frac{1}{2}$ " or 1" thickness. 1" thickness obtained by laminating two sheets together.  
J-M Insulating Lath—Size, 18" x 48", with long edges ship-lapped and all face edges beveled in  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", or 1" thickness. Packed in cartons.

Under laboratory tests with a turnbuckle, J-M Insulating Board has been proved more resistant to distortion than the best diagonally applied wood sheathing.

In addition to its use as sheathing, J-M Insulating Board can be used as roof insulation, attic lining, and partitions throughout the building.

(For decorative uses of Insulating Board and Insulating Board Products, see pages 4-7).

### **On the farm**

More and more, the control of temperature and humidity in farm buildings is receiving the attention of the farmer. J-M Insulating Board, applied right over the interior walls, corrects unsatisfactory conditions at low cost. Used as a lining, it conserves animal heat in dairy barns, stables, brooder houses and laying houses. It is likewise useful as an insulator in ice houses and milk houses, and will help to keep any building cooler in summer.

### **J-M INSULATING LATH Saves plaster and labor — Eliminates unsightly lath marks**



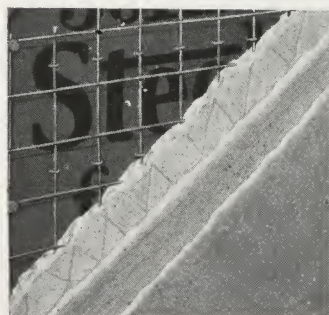
J-M Insulating Lath is Insulating Board in 18 in. x 48 in. size, with long edges ship-lapped, and all face edges beveled. It is applied with the "gridded" surface exposed. Plaster bonds to it with a strength far greater than the key of plaster on

wood lath. J-M Insulating Lath makes a solid, unbroken surface which prevents unsightly lath marks and also results in a saving in plaster and labor.

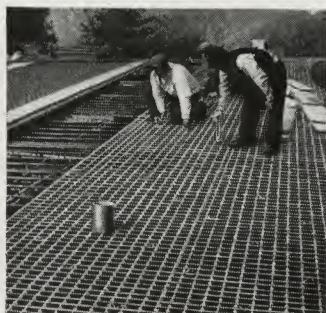




*Steeltex for plaster*



*Steeltex for stucco*



*Steeltex Floor Lath*

### STEELTEX for PLASTER

Minimizes plaster cracking by embedment of reinforcing steel. Made of 2" x 2" mesh, 16 ga., galvanized, copper-bearing fabric, with 200 lb. absorbent fibrous backing. Also available with slotted backing for use in tie-on work. Furnished in sheets, 30 1/2" x 49"; and shipped in cartons containing 44 sheets (50 sq. yds.), weighing approximately 133 lbs. per carton.

*Application:* Attach to walls with 4d common or box wire nails, and to ceilings with 6d nails into each stud or joist. Lap sheets 1" at the end, and 1/2" at the sides. Stagger all joints. Start at one corner of ceiling. Apply on side walls from ceiling down. Apply plaster to not less than 3/4" grounds.

### STEELTEX for STUCCO

A stucco reinforcement of 14 ga. steel wire, backed by two layers of tough fibrous paper, cemented together by a water-proof mastic compound. The backing, in addition to providing a suitable base to receive and hold the wet mortar, also furnishes a seal against moisture penetration and air infiltration.

Furnished in rolls, 49" wide x 110 1/2" feet long, containing 50 sq. yds., and weighing 140 lbs. per roll. Also supplied in sheets 49" x 52", shipped in bundles of 80 sq. yds. (41 sheets), weighing 253 lbs. Steeltex Furring Nails (galvanized) are furnished 1 1/2" long, 500 nails per box; 12 boxes per carton, weighing approximately 50 lbs.

*Application:* Nail completely around the building carrying over openings and around corners. Nail one width above the other, with all joints staggered and lapped at least 3/4" wire to wire. Stretch taut before nailing. Nail horizontal wires over every stud, and every 6 inches vertically. Cut away from openings, and use cut pieces for odd-shaped locations.

### STEELTEX for BRICK or STONE VENEER (38-16)

Provides a monolithic wall of brick or stone, and steel-reinforced cement. Strengthens framework, and offers permanent resistance to penetration of air and moisture. Exactly like Steeltex for stucco, except that wire is 16 ga. Furnished in rolls, 49" wide x 110 1/2" feet long, containing 50 sq. yds., and weighing 107 lbs. per roll.

*Application:* Wrap around building in shingle fashion, in place of sheathing. Stretch taut and nail to studs with galvanized nails. As each course of brick or stone is laid, spade in the mortar to fill the space between the brick or stone and the Steeltex.

## JOHNS-MANVILLE STEELTEX

— a combined reinforcement and backing for plaster, stucco, brick veneer, stone veneer, and concrete floors

J-M Steeltex is an electrically-welded, cold-drawn, galvanized steel wire mesh, to which is attached an integral fibrous backing, offset at the proper distance to secure automatic embedding of the reinforcing in the plaster, stucco, mortar, or concrete. It not only imparts additional structural strength, but also prevents waste of plastic material.

J-M Steeltex is made in four styles, which differ in the gauge of wire and spacing, and also in the type of backing, according to the purpose each is to serve. Each of these styles provides elements of structural strength and economy not found in other materials.



*Steeltex for brick or stone veneer*

### STEELTEX FLOOR LATH

A combined reinforcing and form for concrete or gypsum floors, and roofs, of 2" to 3 1/2" slabs. Made with a 3" x 4" mesh of 12 ga. galvanized wire, with a cord-reinforced fibrous backing of ample strength not only to support the concrete, but to afford a safe walking surface once the fabric is applied to the joists. Water-resistant backing prevents loss of water and cement from the mix, and aids in the proper curing of the concrete.

Furnished in rolls 4 ft. wide and 125 feet long (500 sq. ft.), weighing approximately 187 lbs. per roll.

*Application:* Roll out across top flanges of joist to desired length, and cut. Fasten to one end of bay or panel by clips. Pull taut by a Steeltex Stretcher, and clip to joist with Steeltex Sharp Nose Clips turned in alternately opposite directions. Lap sides of adjacent lengths at least 2", with end lap of at least 1 foot over nearest intermediate joist.

### J-M Welded Wire Reinforcement

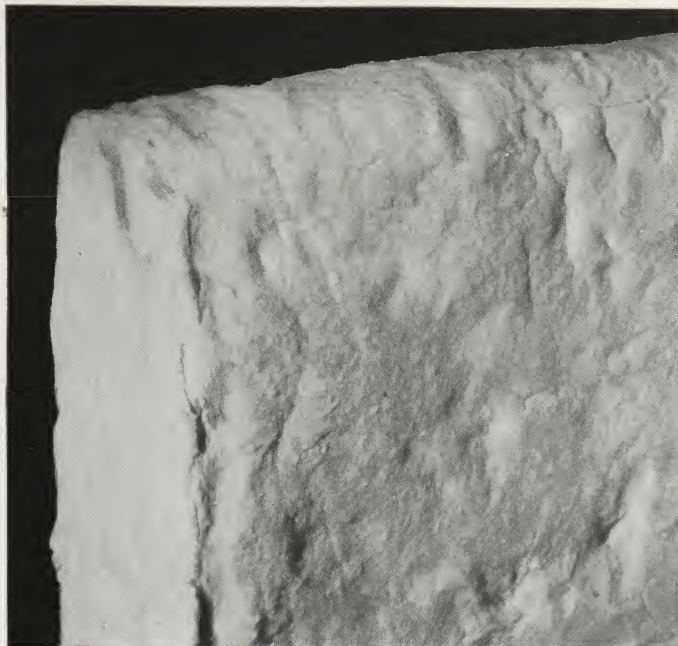
An electrically-welded plain or galvanized wire fabric, furnished in various gauges or spacings. Made in rolls and sheets. Details upon request.



# J-M ROCK WOOL HOME INSULATION

**A full-thickness insulating material, actually blown from rock. Available in two forms for old and new work in walls, roofs and attic floors.**

Johns-Manville Home Insulation is a light, fluffy wool, actually blown from molten mineral, that is unsurpassed for the heat-proofing of practically any building, old or new. Because it is a natural non-conductor of heat, and because it prevents air circulation by filling the hollow spaces inside the walls, J-M Rock Wool checks all three types of heat transmission (radiation, convection, conduction). It is a permanent, rot-proof, odorless material that absolutely will not burn. Four inches of this material are equal in resistance to heat and cold, to a solid stone wall 11 feet thick. As a result, when used to completely insulate a home, it reduces fuel bills as much as 35%, and makes upstairs rooms up to 15° cooler on the hottest summer days. It is made in two forms, Type B and Type A.



*This view illustrates the fluffy, wool-like character of J-M Type B "bats"—amazingly resistant to heat, because every cubic inch contains millions of tiny dead air cells.*

## **TYPE B (for new construction and accessible attics)**

J-M Type B Home Insulation is felted rock wool, formed into "bats," 15" wide x 18" long, or 15" wide by 23" long, which are easy to handle and which fill the space between the walls or roof rafters. These

*When J-M Type B "bats" are installed between the beams in the attic floor, as shown below, downstairs rooms become cooler in summer, easier to heat in winter.*

*Inset: This picture graphically illustrates the difference between an insulated home and one which is NOT insulated. The snow-covered roof at the right indicates that the heat is being kept indoors. The bare roof at the left is a sign that heat is pouring through from the inside and melting the snow.*







*The "bats" can easily be cut with a butcher's knife, or sawed, or even torn with the hands to fit odd-shaped spaces.*

bats can readily be pressed between studs or floor beams and can easily be sawed, cut or even torn with the hands to fit around windows, doorways, pipes, plumbing stacks, outlet boxes, etc.

The convenient size of the bats enables the workman to cover large areas more quickly and economi-

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Type B Home Insulation—Shipped 8 bats per package. One carton of the 15" x 18" size covers approximately 15 square feet of net area. Approximate weight per package, 26 lbs. A carton of 15" x 23" bats covers approximately 19.2 square feet of net area, and weighs approximately 33 lbs.



*In new construction, J-M Type B "bats," installed in all exterior walls as well as across the roof.*

cally than if loose wool were used. Furthermore, J-M Type B Home Insulation gives the home owner full protection against heat loss, for these "bats" are units of uniform thickness and density, and cannot be installed in such a manner as to leave voids or thin spots to waste heat. In addition, they provide added security from fire.

J-M Type B Home Insulation can likewise be applied in open attics and other accessible places in old homes, thereby making the homes much more comfortable all year 'round and much easier to heat.

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### **TYPE A (for existing walls and inaccessible attics)**

For insulating the walls and finished attics of existing homes, J-M Type A Home Insulation is recommended. Type A Home Insulation is nodulated rock wool, which, when "blown" into the wall and attic spaces under pneumatic pressure, fills every nook and cranny with heat re-

sistant material. It can be installed in any building of wood, brick veneer, or stucco. Type A Insulation is installed by Approved Home Insulation Contractors who have the necessary equipment. We shall be glad to give you the name of the Approved Contractor in your neighborhood.

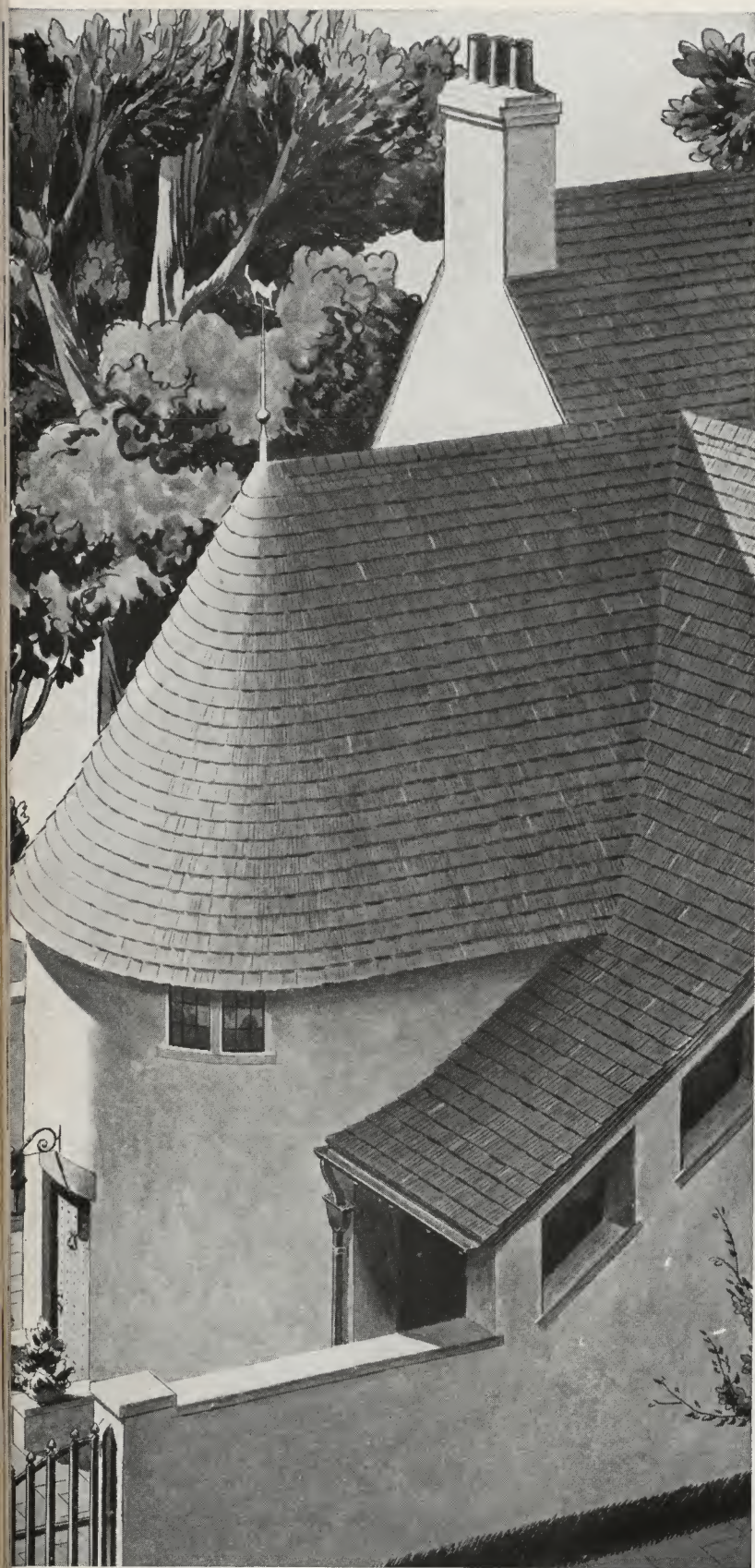


*By the J-M 'blowing' method, it is a simple matter to install J-M Home Insulation in a covered attic floor.*



*Walls of existing structures are insulated in the manner shown above. Even brick and stucco offer no problem.*





There is not a home, large or small, which can afford to be without the protection of a fireproof roof. And now that Johns-Manville Asbestos Shingles are available at prices within the reach of practically every pocket-book, every home can have complete security from fire and weather, and, at the same time, obtain beauty which never grows old.

No finer roof can be selected than a roof of these fireproof, weather-proof Johns-Manville Asbestos Shingles—recognized to be the utmost in roofing quality.

## JOHNS-MANVILLE ROOFINGS and SIDINGS

For every type of roof, Johns-Manville manufactures a roofing material at a cost in keeping with the service and length of life expected. These materials are all designed for application over old roofs, as well as on new buildings.

### RIGID ASBESTOS SHINGLES

J-M Rigid Asbestos Shingles possess all the characteristics of the perfect roof. They are unaffected by the elements. They will not rot, rust, split, or corrode. Made of asbestos fibres and cement, they will not burn—and not one has ever worn out.

For years these fireproof shingles have been regarded as a luxury—but now, lower prices and simplified application methods have brought the cost within the reach of almost any budget.

### ASPHALT SHINGLES

Second only to J-M Asbestos Shingles are J-M Asphalt Shingles. Made on a base of high-grade felts, saturated and coated with refined asphalts, and finally covered with a rolled-in surfacing of colorful minerals, these shingles provide long years of service at a most moderate cost.

### ASBESTOS and ASPHALT SIDING SHINGLES

Just as old roofs can be covered with new shingles, so can old outside walls be re-sided. Especially with its new Cedargrain Asbestos Shingles and Asbestos Clapboards, Johns-Manville has put permanent, maintenance-free side walls within the reach of everyone. Available at even lower cost are J-M Asphalt Shingles, some of which resemble actual brick.

### READY-TO-LAY ROOFINGS

For buildings where shingles are not desired, Johns-Manville provides a complete line of asbestos and asphalt ready-to-lay roofings—each backed by nearly half a century of roofing manufacture.

*All the roofing and siding materials mentioned above are fully described on the following pages.*



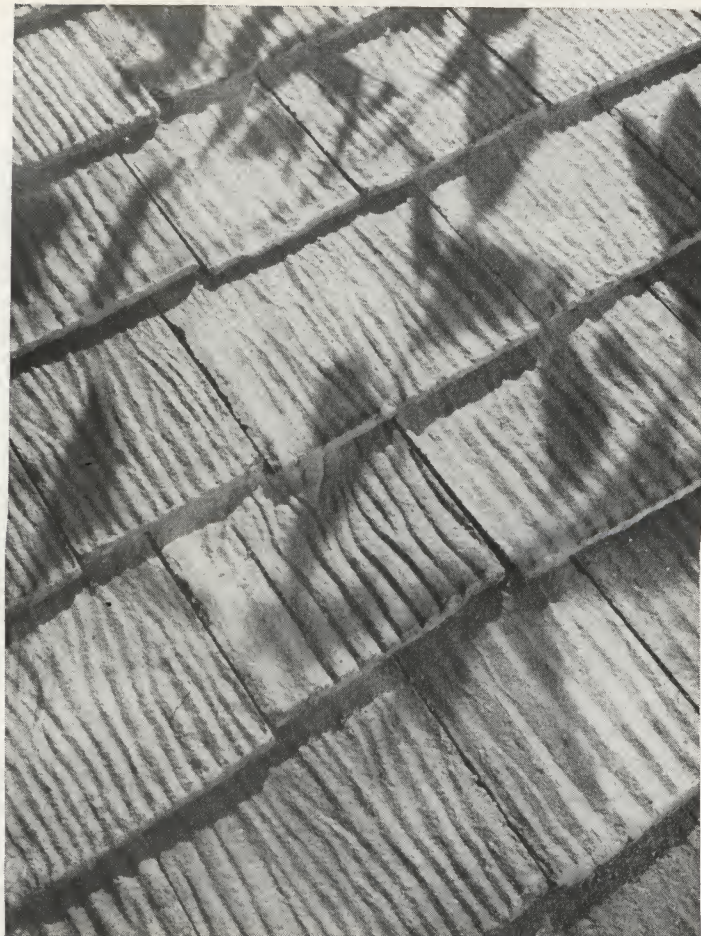
## ASBESTOS SHINGLES

### J-M No. 55 SALEM SHINGLES

In J-M No. 55 Salem Shingles are combined all the characteristics of the finest roofing materials — random widths, harmonious colors, heavy, rugged butts, a beautifully textured surface, and complete protection from weather and fire.

Salem Roofs, which are appropriate on buildings of practically any architectural type, at once provide a mellowness ordinarily procured only by years of weathering. For this reason, they have been selected to protect certain of the nation's foremost historic shrines, a notable example being the Hancock-Clarke House, at Lexington, Mass.

Wherever used, Salem Shingles blend in complete harmony with the architectural scheme.

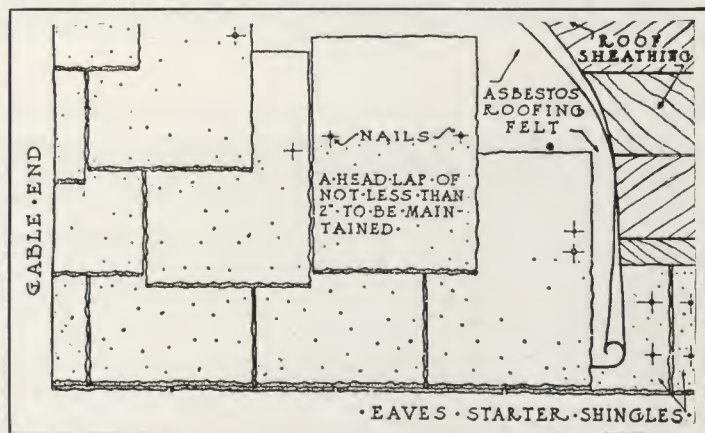


*The rugged texture and heavy tapered butts of J-M Salem Shingles impart a most desirable character to the roof. Because of the mellowness of the colors, there is no obvious newness to a Salem Roof, even when first applied.*

#### COLORS:

- |                       |                   |
|-----------------------|-------------------|
| No. 1 WEATHERED GRAY  | No. 3 OLIVE GREEN |
| No. 2 WEATHERED BLACK | No. 4 SEA GREEN   |

See page 20 for reproduction in full color



Salem Shingles are laid in the familiar American Method fashion. Butts can be staggered. Random widths add distinction.



*J-M Salem Shingles are the most modern of roofs — yet with the character and beauty that once came only with the years.*



No. 55 Salem Shingles—Size, 8" x 16". Butts  $\frac{5}{16}$ ". (Random widths of 6", 8", 10" and 16" on special order at no additional cost, but equal number of 6" and 10" shingles must be ordered.) Packed 20 shingles per bundle. 13 bundles. 260 shingles per square, standard width. Approximate weight,

625 lbs. per square. Use No. 56 Starter and No. 57 Hip & Ridge Shingles. (See page 26.)

Requires approximately 3 lbs. of  $1\frac{1}{2}$ " galvanized nails per square for new work, and approximately 4 lbs. of 2" nails for re-roofing. Underwriters' Class A label.



THESE ARE SOME OF THE ATTRACTIVE COLORS IN WHICH



Above—PLATE 1  
Below—PLATE 2

Above—PLATE 3  
Below—PLATE 4

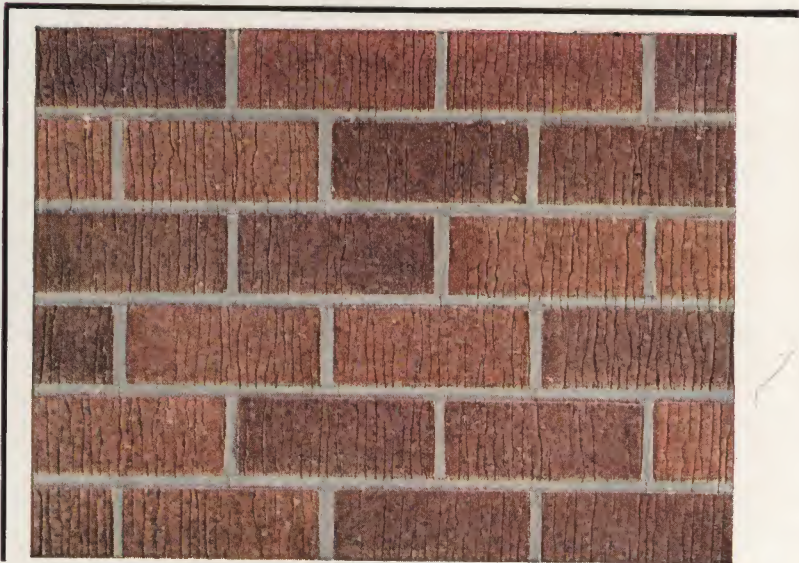
**J-M No. 55 SALEM SHINGLES and  
No. 35 AMERICAN METHOD SHINGLES**

In Plate 1 above, are shown some of the attractive colors in the J-M No. 55 Salem Shingles, and in Plate 2 is a popular blend of No. 35 American Method Shingle colors.

Plate No. 1 shows a Salem Roof composed of 40% Weathered Gray, 25% each of Weathered Black and Sea Green, and 10% of Olive Green—all combined to provide a blend of incomparable beauty that has no suggestion of newness. Note how the use of random widths and staggered butts softens the roof lines and adds variety and charm to the finished effect.

In Plate No. 2 is shown a No. 35 American Method Roof of Granada Red, laid with butts aligned and introducing random accents of Ebon Black. The delicate texture and rimmed edges of this attractive shingle are displayed to even better advantage when the shingles are laid with staggered butts.

*See page 19 for description of Salem Shingles; page 22 for No. 35 Shingles*





# JOHNS-MANVILLE ASBESTOS SHINGLES ARE AVAILABLE



PLATE 5

## J-M No. 30 DUTCH LAP METHOD

## J-M No. 70 HEXAGONAL METHOD

In plates 3, 4, 5, 6 and 7 are shown the various colors in which the J-M Dutch Lap and Hexagonal Shingles are available.

Plates 3, 5 and 6 show the Dutch Lap Roof pattern in Mottled Blue-Black (*Rough Texture*), Mottled Red (*Rough Texture*), and Mottled Copper. In addition, this style is also available in Mottled Gray (*Smooth Surface*), and Mottled Green (*Rough Texture*), with colors as shown in plates 4 and 7.

Plates 4 and 7 illustrate the Hexagonal Method Roof pattern in Mottled Gray (*Smooth Surface*), and Mottled Green (*Rough Texture*). This style of shingle is also available in Mottled Blue-Black, Mottled Red and Mottled Copper, as shown in plates 3, 5 and 6, but without the textured surface.

*See pages 22 and 23 for description of Dutch Lap and Hexagonal Method shingles*



Above—PLATE 6  
Below—PLATE 7

## J-M ASBESTOS SIDING SHINGLES

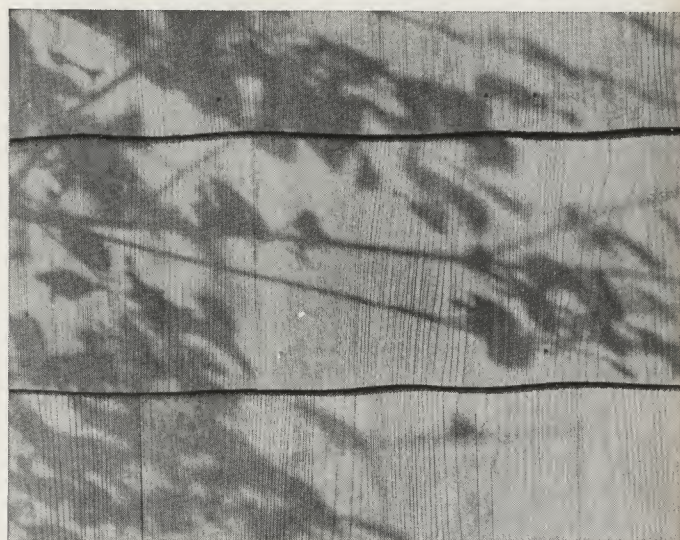
*(For complete details, see pages 24 and 25)*

### Cedargrain Shingles and Asbestos Clapboards

The photograph at the right illustrates the attractive texture which is characteristic of J-M Cedargrain Asbestos Siding Shingles. These new shingles provide the beauty of line and texture heretofore found only in stained wood shingles. In addition to being made in pleasingly blended shades of gray, they are also available in green and brown. J-M Asbestos Clapboards have a modified texture which runs horizontally on the material.

### Brick-Type Asbestos Siding

In the Brick-type Asbestos Siding illustrated at the left, Johns-Manville has combined the permanence of asbestos and cement with the colorful effect of genuine wire-cut brick. Illustrated in a blend of Mulberry and Red. Also available in Buff.





# ASBESTOS SHINGLES

## J-M No. 35 AMERICAN METHOD

In the J-M No. 35 American Method Shingles both color and texture are combined to make roofs of unusual beauty and attractiveness at low cost. The pleasing rough texture, trimmed edges, and rich colors of these shingles give character to the roof and add materially to the attractiveness of the home. Ordinarily these features are found only in higher priced shingles, yet the J-M No. 35's are very moderate in cost.

See illustration on page 19 for method of application

### —COLORS:—

MOTTLED GRAY      EBON BLACK      OLIVE GREEN  
GRANADA RED      SEA GREEN      MOTTLED COPPER

No. 35 American Method—Size, 8" x 16". Tapered to approximately 1/4" butts, 7" exposure. Packed 20 shingles per bundle. 13 bundles, 260 shingles per square. Weight, approximately 565 lbs. per square. (Random widths of 6", 8" and 10" available on special order at slight additional cost.) Approximately 2 1/2 lbs. of 1 1/4" galvanized nails per square for new work, and approximately 3 1/2 lbs. of 2" nails for re-roofing. Use No. 36 Starters and No. 37 Hip & Ridge Shingles. (See page 26.) Underwriters' Class A label.



A restful roof of J-M No. 35 American Method Shingles, entirely in keeping with the permanence of the brick wall and the design of the American Method siding shingles.

## J-M No. 70 HEXAGONAL

With its pleasing pattern, adapted from the old French diagonal shingle, the No. 70 Hexagonal Method Asbestos Shingle is one of the most popular styles ever produced by Johns-Manville.

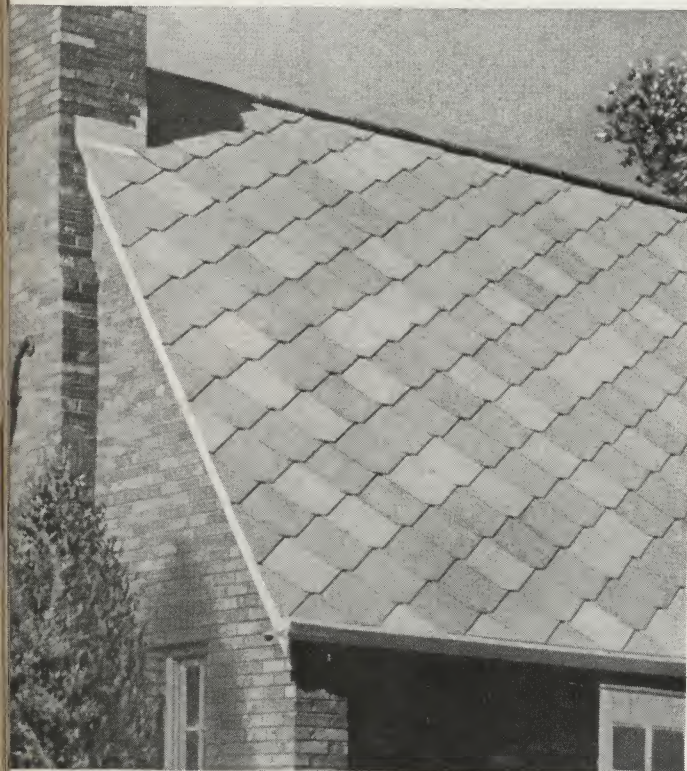
Each shingle has a full 3-inch weather-lap and butts are securely fastened by copper storm anchors running through the previous course, as illustrated in the diagram below.

### —COLORS:—

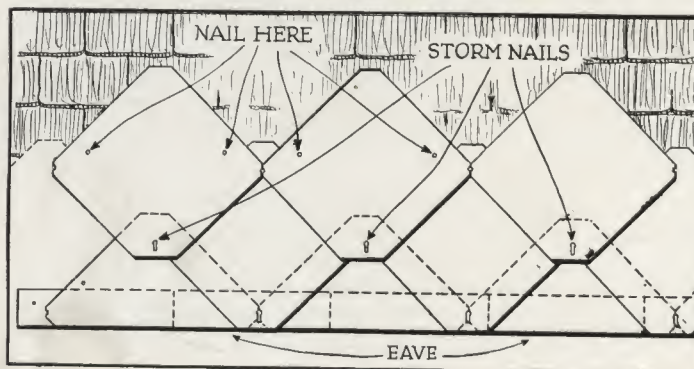
MOTTLED GRAY      MOTTLED BLUE-BLACK  
MOTTLED RED      \*MOTTLED GREEN      MOTTLED COPPER

\*Rough Texture

See pages 20 and 21 for reproductions in full color



The No. 70 Hexagonal Method—Size, 16" x 16". Packed in convenient bundles of 15 shingles each. Weight, approximately 275 lbs. per square. 86 shingles, 1 lb. of 1 1/4" galvanized nails and 86 storm anchors required per square. Exposed 13" x 13" to the weather. Use Nos. 17 and 71 Starters and Ridge Roll. (See page 26.) Underwriters' Class B label.





## J-M No. 30 DUTCH LAP

The J-M No. 30 Dutch Lap Shingle maintains the characteristic horizontal and vertical lines of the American Method style. Its application is so simple that labor costs are materially reduced. This, coupled with the low cost of the shingles, themselves, makes the J-M Dutch Lap Roof one of the most economical asbestos roofs now available.

This shingle, which is lapped at the side and top, with the exposed corner secured by a J-M Clincher, is designed for  $\frac{1}{3}$  or  $\frac{1}{4}$  uniform side lap application, and can be laid from left to right or from right to left. The exposure and effect of the shingle can thus be established according to the appearance and price desired.

*This beautiful Dutch Lap Roof demonstrates how closely the lines of this shingle resemble the American Method lines. Shown on a stucco and half-timber home.*

### The J-M Clincher

The J-M Clincher, which replaces the old storm anchor in securing the exposed corners of the shingles, is the key to the new simplified method of application. It can be quickly slipped into place and clinched with a smart hammer blow at any time during the application of the roof. It grips securely and cannot come loose.



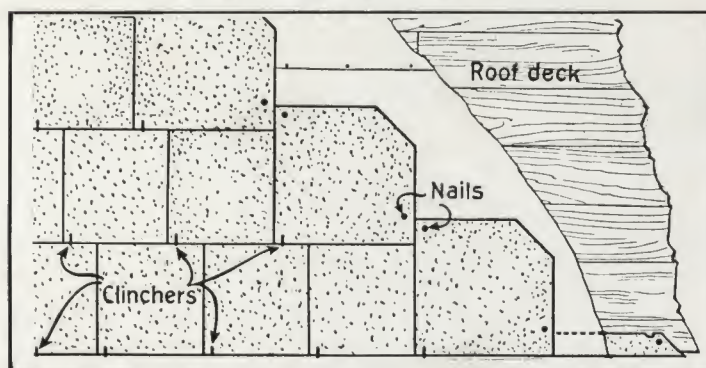
*The J-M Clincher*

#### —COLORS:—

MOTTLED GRAY      \*MOTTLED GREEN  
\*MOTTLED RED      \*MOTTLED BLUE-BLACK  
MOTTLED COPPER

\*Textured Surface

See pages 20 and 21 for reproductions in full color.



*This diagram shows graphically how easily a No. 30 Dutch Lap Roof can be laid. The J-M Clincher securely locks exposed corners with minimum of labor.*



*Applying a Johns-Manville No. 30 Dutch Lap roof right over a roof of old wood shingles.*



J-M No. 30 Dutch Lap Method—for  $\frac{1}{4}$  side lap application. Size  $16\frac{1}{4}" \times 16\frac{1}{4}"$ . Packed 15 shingles per bundle, 6 bundles, 90 shingles, per square. Weight approximately 300 lbs. per square. Requires 90 J-M Clinchers per square; approximately 1 lb. of  $1\frac{1}{4}"$  galvanized nails for new work and approximately  $1\frac{3}{4}$  lbs. of 2" nails for re-roofing. Use No. 31 Eaves Starter and either No. 97 Hip & Ridge Shingle or Ridge Roll. (See page 26.) Underwriters' Class B label.

J-M No. 30 Dutch Lap Method—for  $\frac{1}{3}$  side lap application. Size and packaging same as for  $\frac{1}{4}$  side lap but requires  $6\frac{2}{3}$  bundles, 100 shingles per square. Requires 100 J-M Clinchers per square; approximately  $1\frac{1}{4}$  lbs. of  $1\frac{1}{4}"$  galvanized nails for new work and approximately 2 lbs. of 2" nails for re-roofing. Use No. 31 Eaves Starter and either No. 97 Hip & Ridge Shingle or Ridge Roll. (See page 26.) Underwriters' Class B label.





*J-M Cedargrain Siding Shingles can hardly be distinguished from gray-stained wood shingles. Their real difference becomes apparent as the years pass by with no need for periodic upkeep. The style illustrated here is the No. 105.*

## **J-M ASBESTOS SIDING SHINGLES and CLAPBOARDS**

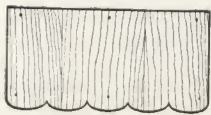
With its new Cedargrain Asbestos Siding Shingles, Johns-Manville provides a simple, economical, and absolutely permanent solution to the problem of siding maintenance. In color, these new shingles are popular shades of gray, brown and green. Through faithful reproduction of grain and texture, they provide the harm of the finest wood shingles, with irregular butt

lines. An exclusive feature is the heavy tapered butt which assures a pleasing shadow line at all times. Cedargrain Shingles can be applied at a cost comparing favorably with that of asphalt shingles. In the same material, Johns-Manville also makes Asbestos Clapboards, with a pleasing texture. All styles of J-M Asbestos Siding are described on the facing page.





The illustration at the top shows the No. 107 style of Cedargrain Shingles, with its distinctive effect of staggered butts. Below it is a section of a wall sided with the new, textured J-M Asbestos Clapboards.



**No. 108-T SIDING SHINGLE**—For use with Nos. 105-T, 106-T and 107-T shingles to obtain decorative effects. 63 shingles per square, packed in 3 bundles. Special nails for butts and felt backer strips for vertical joints furnished with shingles. Exposure  $9\frac{1}{2}$ ". Minimum headlap  $1\frac{1}{16}$ ". Weight 285 lbs. per square.  $1\frac{1}{4}$  lbs. 2" galvanized nails per square required when re-siding. No starters required.

**No. 108-U SIDING SHINGLE**—The same as No. 108-T, except that it is uniform in thickness and weighs 215 lbs. per square.

## CEDARGRAIN ASBESTOS SIDING SHINGLES AND ASBESTOS CLAPBOARDS

(See page 24 for general description)



**No. 105-T SIDING SHINGLE**—Size, 12" x 24". Tapered to  $\frac{5}{16}$ " butts. 57 pieces per square, packed in 3 bundles of 19 shingles each. Headlap  $1\frac{1}{2}$ ". Weight 260 lbs. per square. No starters required.  $1\frac{1}{4}$  lbs. galvanized nails required per square for re-siding. Special nails for butts and felt backer strips for vertical joints furnished with shingles.

**No. 105-U SIDING SHINGLE**—The same as No. 105-T, except that it is uniform in thickness, and weighs 195 lbs. per square.



**No. 106-U SIDING SHINGLE**—A companion to No. 105-U, for use where a smaller exposure is desired, or for combination with No. 105-U shingles in alternate courses. Size, 8" x 24". 93 pieces per square packed in 3 bundles of 31 shingles each. Headlap  $1\frac{1}{2}$ ". Weight 212 lbs. per square. No starters required. 2 lbs. galvanized nails required per square for re-siding. Special nails for butts and felt backer strips for vertical joints furnished with shingles.



**No. 107-T SIDING SHINGLE**—Gives effect of staggered butts. Size, 12" x 24". Tapered to  $\frac{5}{16}$ " butts. 60 shingles per square, packed in 3 bundles. Special nails for butts and felt backer strips for vertical joints furnished with shingles. Exposure 10". Minimum headlap  $1\frac{1}{4}$ ". Weight 270 lbs. per square.  $1\frac{1}{4}$  lbs. 2" galvanized nails per square required for concealed nailing when re-siding. No starters required.

**No. 107-U SIDING SHINGLE**—The same as No. 107-T, except that it is uniform in thickness and weighs 205 lbs. per square.

**ASBESTOS CLAPBOARDS**—Size  $9\frac{1}{2}$ " x 8'. Exposure 8". Packed in cartons containing one-half square. Weight approximately 195 lbs. per square. Color, white. Requires 1-lb. 2" galvanized roofing nails per square. Special nails for butts and felt backer strips for vertical joints furnished with clapboards.

## J-M BRICK-TYPE ASBESTOS SIDING

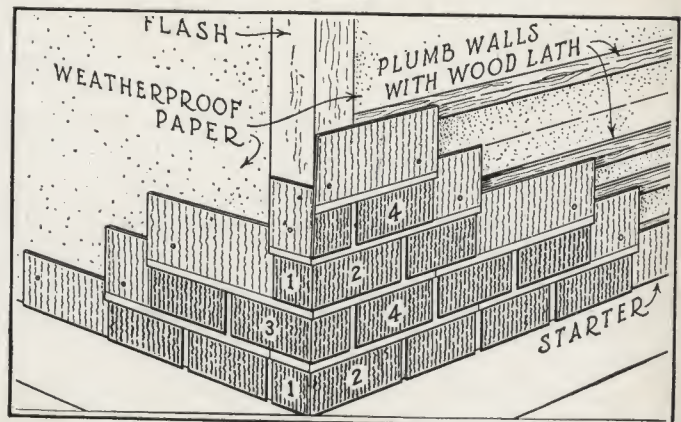


Once a frame home requiring periodic painting, this dwelling is now to all appearances a brick residence.



**Brick-type Asbestos Siding**—Size,  $8\frac{1}{8}$ " x  $16\frac{1}{4}$ ". Brick size  $3\frac{1}{8}$ " x  $7\frac{1}{8}$ " with  $\frac{1}{2}$ " mortar lines. Weight, approximately 440 lbs. per square. 4 lbs. of 2" galvanized nails per square. Use Brick-type Starters (see page 26), or full-size pieces with brick portion cut off.

A two-tab shingle in colors and design that give the effect of genuine wire-cut brick. (See page 20 for colors.)

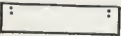
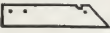

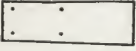
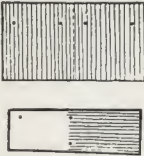

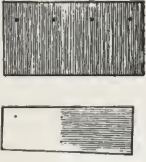
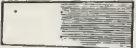

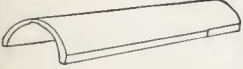


This diagram illustrates both the method of applying Brick-type Siding Shingles and the method of finishing an outside corner.



# STARTERS, RIDGE ROLL AND ACCESSORIES

SPECIAL NOTE—Weights are for shingles bundled. Crated weights about 6% more.

Style	Description and Catalog Number	Colors	Approx. wt. per 100 lineal feet
	No. 17—STARTER—For use with No. 70 Hexagonal Shingles. 75 pieces per 100 lineal feet. Packed 15 pieces per bundle. Size 4" x 16".	Mixed Colors.....	63
	No. 31—EAVES STARTER—For use with No. 30 Dutch Lap Shingles. 99 pieces per 100 lineal feet, with 1/4 side-lap. Packed 15 per bundle.	Mixed Colors.....	60 with 1/4 side-lap
	No. 71—EAVES SHINGLE—For use with No. 70 Hexagonal Shingles. 58 pieces per 100 lineal feet. Packed 15 pieces per bundle. Each eaves shingle is 20 15/16" wide.	Mottled Gray ..... Mottled Red ..... Mottled Blue-black .. Mottled Green ..... Mottled Copper.....	112
	No. 97—HIP AND RIDGE SHINGLE—For use with No. 30 or No. 70 Shingles. Cut from same stock as body shingle. Size 4 19/32" to 5 11/32" wide by 16" long. 340 shingles per 100 lineal feet. Packed 17 pieces per bundle.	Mottled Gray ..... Mottled Red ..... Mottled Blue-black .. Mottled Green ..... Mottled Copper.....	375
	No. 36 STARTER and No. 37 HIP AND RIDGE SHINGLE—For use with No. 35 Shingles. Cut from the same stock as No. 35 Shingles. No. 36 Starter is 9" x 16", tapered to 1/4" butt, requiring 75 pieces per 100 lineal feet; packed 15 pieces per bundle. No. 37 Hip and Ridge Shingle is 4 19/32" to 5 11/32" wide, by 16" long, requiring 340 pieces per 100 lineal feet; packed 17 shingles per bundle.	No. 36 Starter— Mixed Colors.....	225
		No. 37 Hip and Ridge Shingle—same colors as main body Shingles.	465
	No. 56 STARTER and No. 57 HIP AND RIDGE SHINGLE—For use with No. 55 Salems. Cut from same stock as Salems. No. 56 Starter is 9 1/2" x 17", tapered to 5/16", requiring 72 pieces per 100 lineal feet. 10 shingles per bundle. No. 57 Hip and Ridge Shingle is 4 19/32" to 5 11/32" wide by 16" long. 340 shingles per 100 lineal feet; packed 10 shingles per bundle.	No. 56 Starter— Mixed Colors.....	240
		No. 57 Hip and Ridge Shingle—same colors as No. 55 Salems....	510
	BRICK-TYPE STARTER—For use with Brick-type Asbestos Siding. 75 pieces per 100 lineal feet. Packed 25 pieces per bundle. Size, 4 9/16" x 16 1/4".	Gray .....	75
	RIDGE ROLL—93 sections required per 100 lineal feet. Packed in crates of 33 sections each at Manville and Waukegan; and in crates of 31 sections each at Gretna.	Gray ..... Red ..... Blue-black ..... Green ..... Copper .....	372

**GALVANIZED NEEDLE-POINT NAILS**—Specially made for use with asbestos shingles. Recommended in place of ordinary galvanized nails. See previous pages for quantities and sizes for each type of shingle.

**COPPER CLINCHERS**—The new fastening device developed by Johns-Manville. Saves time in application. Used only with No. 30 Shingles. One required for each shingle. For description of application refer to page 23.

**COPPER STORM ANCHORS**—For use with No. 70 Shingles only. One required for each shingle.

**COPPER RIDGE ROLL FASTENERS**—For use in fastening the exposed end of ridge roll. One required for each piece of ridge roll.

**COPPER NEEDLE-POINT NAILS**—Assure an absolutely permanent job. Made in three lengths: 1 1/4" (approx. 210 per lb.); 1 1/2" (approx. 195 per lb.); 2" (approx. 160 per lb.).



## SQUARE-BUTT STRIPS and INDIVIDUALS



The J-M line of Asphalt Shingles includes among other styles, square-butt strips and individual shingles. Featured are the J-M Thick-Butt Shingles, and the new Double Coated Strips.

The Thick-Butt Shingles are scientifically designed to give greater protection by means of an extra thickness of asphalt and slate on both front and back of the tabs. This extra surfacing also seals the edges, thus further protecting the asphalt saturant from the drying-out action of the elements.

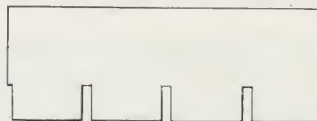
The Double Coated Strip Shingles have become one of the most popular styles ever offered by Johns-Manville. By coating the exposed side of the tabs with a second layer of asphalt and slate, Johns-Manville has added extra weight and protection where it counts the most, without materially increasing the cost.



approximately 210 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Standard Red, Blue-black, Tile Red, Blended Normandy Greens, Blended Romany Reds, Brittany Blend, Inverness Greens and Barcelona Browns.

**STANDARD 10" STRIP SHINGLES**—Provide a low-cost roof. Size, 10" x 36", 2" head-lap, 4" exposure. 100 shingles per square, packed in 2 bundles. Weight, ap-



packed in 3 bundles. Weight, approximately 266 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Standard Red, Tile Red, Blue-black and Brittany Blend.

**STANDARD 12 1/2" STRIP SHINGLES**—Provide double coverage, with a 4 1/2" head-lap. Exposure, 4". Size, 12 1/2" x 36". 100 shingles per square,



**THICK-BUTT SHINGLES**—Butts re-dipped and slate-surfaced on both sides, providing extra thickness and sealing the edges. Size, 12" x 36". Exposure, 5"; head-lap, 2". 80 strips per square, packed in 3 bundles. Weight, approximately 230 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Tile Red, Blue-black, Killarney Greens, Blended Romany Reds, Granada Blend, Barcelona Browns and Inverness Greens.



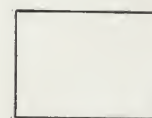
**DOUBLE COATED SHINGLES**—Exposed portion re-coated with asphalt and slate. Size, 12" x 36". Exposure, 5"; head-lap, 2". 80 strips per square, packed in 3 bundles. Weight approximately 210 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Standard Blue-black, Tile Red, Blended Romany Reds, Killarney Greens, Brittany Blend, Barcelona Browns and Inverness Greens.



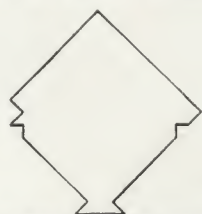
**GIANT STRIP SHINGLES**—Cut from high-quality giant weight fabric. Moderate in price and economical to apply. Size, 12" x 36". Exposed 5"; head-lap, 2". 80 shingles per square, packed in 3 bundles. Weight, approximately 257 lbs. per sq. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Blue-black, Tile Red, Blended Romany Reds, Blended Normandy Greens, and Brittany Blend.



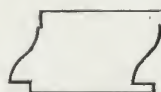
**DUTCH LAP SHINGLES**—Laid Dutch Lap Method using copper clips for exposed corners. Size, 16" x 12". 2" head-lap; 3" side-lap. 112 shingles, 2 bundles per square. Weight, approx. 135 lbs. per square (Standard), and 162 lbs. (Giant). Clips furnished unless otherwise specified.

Available in Charmaine Green, Tile Red and Blue-black in Standard Weight; and in Charmaine Green, Tile Red, Standard Blue-black, Blended Romany Red and Brittany Blend in Giant Weight.



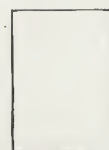
**WEATHERLOK SHINGLES**—Size 16" x 16". Exposure 13" x 13". Lap 3". 85 shingles per square, packed in 2 bundles. Weight approximately 135 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Tile Red, Standard Blue-black and Burgundy Duo-blend.



**LATCH THATCH SHINGLES**—A lock type re-roofing shingle of new and distinctive design, providing a wide range of effects. Size, 12" x 18". Maximum exposure, 9 1/2" x 15". 102 shingles per square, packed in 2 bundles. Weight, approximately 135 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Tile Red, Blue-black and Burgundy Duo-blend.



**GIANT INDIVIDUAL SHINGLES**—American Method Shingles of the highest quality. Size, 12" x 16". 5" exposure, 6" head-lap. 225 shingles per square, packed in 4 bundles. Weight, approximately 325 lbs. per sq. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Blue-black, Tile Red, Blended Romany Reds and Brittany Blend.



**STANDARD INDIVIDUAL SHINGLES**—Size, 9" x 12 3/4". Exposed 4". 4 3/4" head-lap. 378 shingles per square, packed in 4 bundles. Weight, approximately 253 lbs. per square. Also used for covering hips and ridges. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Standard Red, Tile Red, Blue-black and Brittany Blend.



# THESE ARE THE COLORS AND BLENDS



**Killarney Greens**

*An exceedingly attractive blend. Looks well on practically every home. Available in Thick-Butt and Double Coated Strips only.*



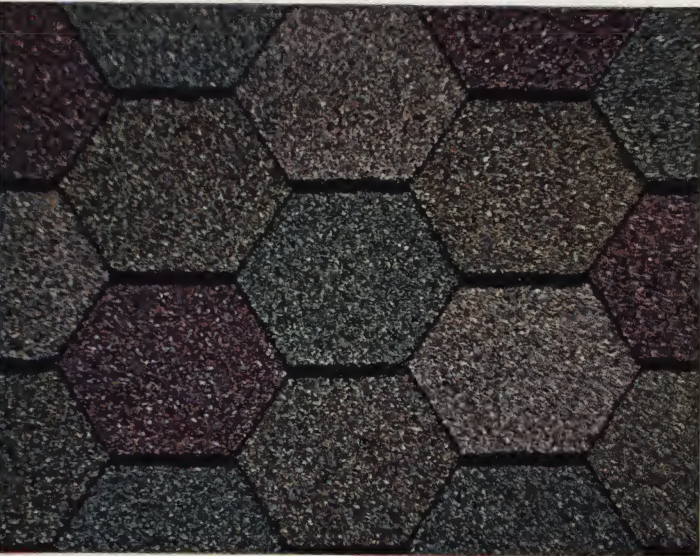
**Charmaine Green**

*The new brighter, livelier J-M shade. Available in all styles.*



**Standard Red**

*Std. 10" and 12½" Sq.-Butt Strips, Std. Individ., and Std. 11⅓" Hex.*



**Blended Normandy Greens**

*Available in Giant Hexagonal, Standard 11⅓" and 12⅓" Hexagonal, Giant Square-Butt Strips and Standard 10" Square-Butt Strips.*



**Brittany Blend**

*In all hexagonal strip styles, and in Standard 10" and 12½" Square-Butt Strips, Giant Square-Butt Strips, Double Coated Strips, Giant and Standard Individuals, and Giant Dutch Lap.*



**Blended Romany Reds**

*Available in all Hexagonal Strip styles, and Thick-Butt and Double Coated Strips, Giant Individual, Standard 10" and Giant Square-Butt Strips, and Giant Dutch Lap.*



**Inverness Greens**

*A new blend just developed by Johns-Manville. Available in Standard 11⅓" Hexagonal, 10" Standard Strips, Standard Thick-Butt and Double Coated Strips.*



# OF JOHNS-MANVILLE ASPHALT SHINGLES



**Tile Red**

*Available in all styles.*



**Blue-Black**

*Available in all styles.*



**Burgundy Duo-Blend**

*Goes well with small, cozy homes. Available in Latch Thatch and Standard 11 $\frac{1}{3}$ " Hexagonal styles. (Latch Thatch illustrated.)*



**Picardy Duo-Blend**

*Its warm brown and yellow tones are particularly well suited to half-timbered or stucco construction. Available in Standard 11 $\frac{1}{3}$ " Hexagonal style only.*



**Gascony Duo-Blend**

*A green-and-gray mixture that goes well on a house with light-colored walls. Available in Standard 11 $\frac{1}{3}$ " Hexagonal style only.*



**Barcelona Browns**

*A new combination of exceptional charm. Available in Standard 11 $\frac{1}{3}$ " Hexagonal, 10" Standard Strips, Standard Thick-Butt and Double Coated Strips.*



**Granada Blend**

*An adaptation of Brittany Blend, which for years has been one of the most popular Johns-Manville blended effects. Available in Thick-Butt style only.*



ASPHALT  
SHINGLES

HEXAGONAL  
STRIPS

J-M Hexagonal Shingles, being made in a number of sizes and in both giant and standard weights, offer a wide choice in the selection of a durable, fire-resistant roof to meet any requirement of price or personal preference.

These attractive strip shingles are notched and keyed for easy application. This feature, together with the low cost of the shingles, themselves, makes roofs of J-M Hexagonal Asphalt Shingles unexcelled for economy; while their attractive design and colorful beauty recommend them for use on many types of homes.

—COLORS:—

The following colors and blends are found in the Hexagonal style. Refer to the description of each shingle for the colors in which it is available.

CHARMAINE GREEN	BLENDED ROMANY REDS
FIELDSTONE GREEN	BLENDED NORMANDY GREENS
STANDARD RED	PICARDY DUO-BLEND
BLUE-BLACK	GASCONY DUO-BLEND
TILE RED	BURGUNDY DUO-BLEND
BRITTANY BLEND	INVERNESS GREENS
BARCELONA BROWNS	

All colors and blends are illustrated on pages 28 and 29.



This striking photograph illustrates how completely a blended roof of J-M Hexagonal Asphalt Shingles harmonizes with walls of brick.



**STANDARD 11 $\frac{1}{3}$ " HEXAGONAL**—An economically-priced standard weight shingle. Size, 11 $\frac{1}{3}$ " x 36". 4 $\frac{2}{3}$ " exposure. 2" head-lap. 86 strips per square packed in 2 bundles. Weight, approximately 167 lbs. per sq. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Blue-black, Tile Red, Blended Normandy Greens, Blended Romany Reds, Brittany Blend, and Burgundy, Gascony and Picardy Duo-blends, Barcelona Browns and Inverness Greens.



**GIANT HEXAGONAL SHINGLES**—A popular shingle, made of giant weight material. Size, 12 $\frac{1}{3}$ " x 36". 4 $\frac{2}{3}$ " exposure. 3" head-lap. 86 strips per square packed in 3 bundles. Weight, approximately 235 lbs. per sq. Underwriters' Class C label.

Available in Charmaine Green, Fieldstone Green, Blue-black, Tile Red, Blended Normandy Greens and Brittany Blend.



**STANDARD 12 $\frac{1}{3}$ " HEXAGONAL**—Exactly the same size and shape as the Giant Hexagonal, but of standard weight material. Size, 12 $\frac{1}{3}$ " x 36". 4 $\frac{2}{3}$ " exposure. 3" head-lap. 86 strips per square packed in 2 bundles. Weight, approximately 186 lbs. per square. Underwriters' Class C label.

Available in Tile Red, Charmaine Green, Fieldstone Green, Blue-black, Blended Normandy Greens, Blended Romany Reds and Brittany Blend.



**STANDARD 12 $\frac{1}{2}$ " DOUBLE COVERAGE HEXAGONAL**—a full double-coverage shingle cut from standard weight material. Size, 12 $\frac{1}{2}$ " x 36". 4" exposure. 4 $\frac{1}{2}$ " head-lap. 100 strips per square packed in 3 bundles. Weight, approximately 229 lbs. per square. Underwriters' Class C label.

Available in Charmaine Green, Tile Red, Standard Blue-black, Blended Romany Reds, and Brittany Blend.



J-M Hexagonal Asphalt Shingles—durable, fire-resistant, easy to apply and attractive in color—



## J-M ASPHALT SHINGLES FOR SIDING



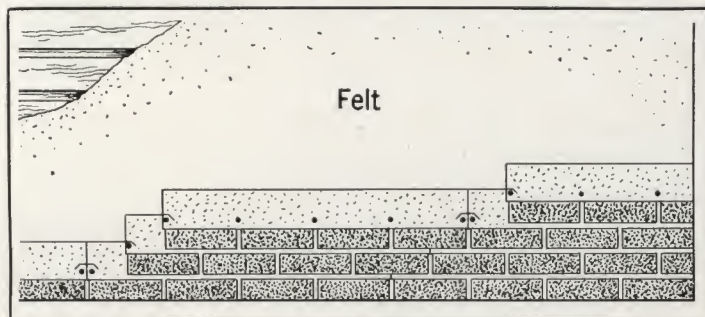
From just an ordinary frame house into a "brick" residence—that is the story told by these two pictures. J-M Bric-Side Asphalt Shingles, applied right over the old clapboards provide the appearance of a new home, with freedom from periodic upkeep costs.



### J-M BRIC-SIDE

J-M Bric-Side Asphalt Shingles at once give any frame building the desirable appearance of brick. Like J-M Asphalt Roofing Shingles, these special siding shingles are made on a base of selected felt, which is saturated and coated with refined asphalt and then coated with slate. In addition to this slate surfacing, however, there is a second, heavier surfacing of asphalt and colorful slate or minerals on the exposed tabs. As a result, when the shingles are applied, they give the effect of brick actually protruding from black or cream mortar. This extra thickness on the tabs naturally provides a greater measure of protection.

Soldier courses, representing bricks standing on end, are also available for decorative treatment around windows and doors. Specially constructed corner pieces, matching the shingles, assure neat, strong corners.



Application detail of J-M Bric-Side Shingles



J-M Bric-Side—Size, 7.1" x 36". Exposure 3"; headlap 1.1". 131 strips per square, packed in three bundles. Approximate weight per square: Single-dipped 210 lbs.; Double-dipped, 230 lbs.



4-POINT HEXAGONAL RE-SIDING SHINGLES—A low-priced strip shingle for re-siding work. Size 36" long x 9" wide, with a 4" exposure and 1" head-lap. 100 strips per square, packed in 2 bundles. Weight approximately 150 lbs per square. For siding work only. Must not be used for roofing. Available in Blue Tile Red, and Charmaine Green.

### J-M BRIC-SIDE COLORS:

J-M Bric-Side Asphalt Shingles are available in the following variety of blends and solid colors, with "mortar" joints in black or cream as noted:

- |                                      |                          |
|--------------------------------------|--------------------------|
| No. 1—Blend: Black or cream joint    | No. 3—Blend: Cream joint |
| No. 2—Tile Red: Black or cream joint | No. 4—Buff: Black joint  |
| No. 5—Blend: Brown joint             |                          |

Color illustrations of Blends No. 1 and 3 are shown on pages 28 and 29



The owner of this apartment building not only has made his property outstanding in appearance, but has also done away with periodic maintenance expense for siding upkeep.

Soldier courses—Size, 12" x 36". 45 pieces per square, packed in two bundles. Approximate weight, 150 lbs. per square. Available in same colors as Bric-Side Shingles.

Corner strips—Size, 7.1" x 13 1/4". Furnished 50 pieces per carton (25 rights and 25 lefts). Approximate weight, 35 lbs. per carton. Available in same colors as Bric-Side Shingles.



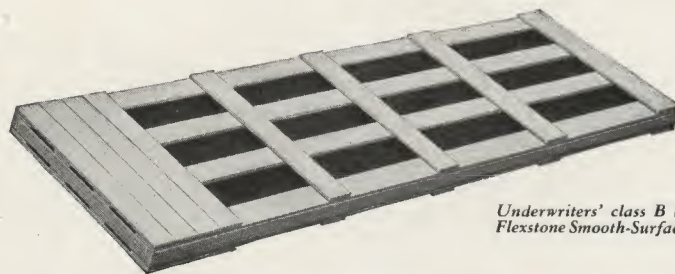
# READY ROOFINGS

## ASBESTOS READY ROOFINGS

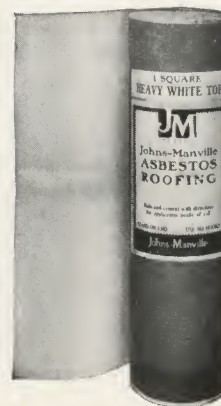
J-M Asbestos Ready Roofings provide, in a most economical and durable form, fireproof, weather-proof protection, for use especially on farm and industrial buildings, and all other structures which require the best ready roofing which can be obtained.

Whether used with the smooth or the slate surface or with the white top ply, they give the fullest measure of protection, because each style is built on a base of permanent, fire-resisting asbestos felt.

A variety of weights and colors makes it possible to select a suitable roof for every type of service.



*Underwriters' class B label on all Flexstone Smooth-Surfaced Roofing.*



**FLEXSTONE SMOOTH-SURFACED ASBESTOS ROOFING**—A high-grade, smooth-surfaced roofing consisting of plies of asphalt-saturated asbestos felt, cemented together with asphalt. This built-up construction insures unusually long life and service. Crated in flat sheets measuring 32" x 80". Packed with or without nails and cement or with Zinc Pyramid Kaps, as specified. Made in two weights—Heavy (3-ply) and Extra Heavy (4-ply). Heavy weight shipped in 5-sq. crates. Material weighs approximately 66 lbs. per square, including nails, cement and butt lap strips. Shipping weight, crated, approximately 80 lbs. per square. Extra Heavy shipped in 4-square crates. Material weighs approximately 83 lbs. per square, including nails, cement and butt lap strips. Shipping weight, crated, approximately 98 lbs. per square.

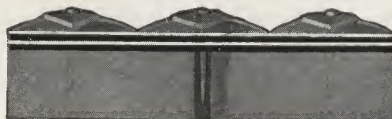
**FLEXSTONE SLATE-SURFACED ASBESTOS ROOFING**—Heavy, asphalt-impregnated asbestos felt, surfaced on one side with slate, in red, green or blue-black. Used on steep-roofed buildings where color is desired. Packed in 1-square rolls. Rolls are 32" wide, with 2" selvage. Weight approximately 85 lbs. per square, including nails, cement and butt lap strips. Also furnished with Zinc Pyramid Kaps, or without nails and cement, as specified. *Underwriters' Class B label.*

**ASBESTOS SLATERS FELT**—for sheathing houses and as a liner under asbestos shingles, tile or slate. Made of high-grade asbestos felt saturated with asphalt. Shipped in 3-square rolls, 32" wide, weighing approximately 45 lbs. per roll.

**WHITE TOP ASBESTOS ROOFING**—Plies of asphalt-impregnated asbestos felt, cemented together with asphalt, with a top ply of white (unimpregnated) asbestos felt. Used where a white, light-reflecting surface is desired. Supplied in three weights: Standard (3-ply), Heavy (3-ply) and Extra Heavy (4-ply). Standard weight shipped in 1 or 2-square rolls, 32" wide, weighing approximately 55 lbs. per square, including nails, cement and butt lap strips. Heavy weight shipped in 1 or 2-square rolls, 32" wide, weighing approximately 63 lbs. per square including nails, cement and butt lap strips. Extra Heavy weight shipped in sheets, 32" x 80". 6 sheets per square, 4 squares per crate. Material weighs approximately 83 lbs. per square, including nails, cement and butt lap strips. Shipping weight, crated, approximately 98 lbs. per square.



*Ordinary Nailing*



*With Pyramid Kaps*

**ZINC PYRAMID KAPS**—A non-corroding device for making roll roofing laps weather-and-water-tight. Applied continuously along the laps, they exert a strong, positive and evenly distributed pressure.

Laps cannot buckle, pucker or tear away. Illustrations compare the action of Pyramid Kaps with ordinary nailing. Furnished with roofing, when specified, in strips approximately 14" long.



## ASPHALT READY ROOFINGS



In the line of J-M Asphalt Ready-to-lay Roofings are found materials suited for use on permanent, steep-roofed buildings, on residences, and on all temporary and semi-permanent structures.

This line offers a wide choice of weights, a selection between smooth and slate surfacing, and a choice of colors, so that every demand can be met for a quality roof that is durable and attractive—yet is low in cost and suited to the length and type of service expected of it.



**SLATEKOTE ROOFING**—A slate-surfaced roofing of highest quality, furnished in a variety of pleasing colors. Makes colorful roofs at low cost. Packed in 1-square rolls, 36" wide, 2" selvage. Weight, approximately 90 lbs. per square. Nails and cement included with roofing. *Underwriters' Class C label.*

Colors: Red, Green, Charmaine Green, Blue-black, Tile Red and Variegated.

**PILOT ROOFING**—A smooth-surfaced roofing of the highest quality. Recommended for all permanent, steep-roofed buildings. Packed in rolls, 36" wide, containing 108 square feet.

Medium—Approx. 45 lbs. per square.

Heavy—Approx. 55 lbs. per square.

Extra Heavy—Approx. 65 lbs. per square.

Super Heavy—Approx. 75 lbs. per square.

Packed with galvanized nails and cement. *Underwriters' Class C label.*

**SLATEKOTE DIAMOND POINT AND MODERNEGE ROOFING**—Very popular for re-roofing, because of its interesting pattern and pleasing colors. Packed in rolls, 32" wide, covering 100 square feet of roof area. Weight, approximately 105 lbs. per roll. Packed without nails or cement. *Underwriters' Class C label.*

Colors: Diamond Point Roofing—Red, Green, Charmaine Green, Blue-black, Variegated.

Modernege—Mossfield, Redfield, Romany Blendfield, and Kilarney Blendfield.

**SLATEKOTE STARTING STRIPS**—Standard Slatekote Roofing cut in strips for use as starting shingles, for lining valleys and for covering hips and ridges. Packed, without fixtures, in rolls, 36 feet long, in the following widths and weights: 9" wide — 21 lbs. per roll; 12" wide — 28 lbs. per roll; 18" wide — 42 lbs. per roll; 24" wide — 56 lbs. per roll. Furnished in Red, Green, Blue-black, Tile Red, Charmaine Green.

**SERVICE ROOFING**—A medium grade of roofing, second only to Pilot. Will serve well on sheds, shops and out-buildings. Packed in rolls, 36" wide, containing 108 square feet. All weights packed with nails and cement. Furnished in four weights:

Light—Approx. 35 lbs. per square.

Medium—Approx. 45 lbs. per square.

Heavy—Approx. 55 lbs. per square.

Extra Heavy—Approx. 65 lbs. per square.

*Heavy and Extra Heavy weights carry Underwriters' Class C label.*

**SPLIT-SHEET SLATEKOTE ROOFING**—Provides a colorful, semi-built-up roof of long life, at low cost. Also used as a cap sheet for built-up roofing, where color is desired. Packed in 1-square rolls, 36" wide, 19" selvage. Covers 51 square feet of weather area per roll. Weight approximately 55 lbs. Packed without nails and cement. *Underwriters' Class C label.*

Colors: Red, Green, Blue-black.

**PLANET ROOFING**—A good grade of smooth-surfaced roofing, recommended for temporary buildings and miscellaneous uses. Packed in 1-square rolls, 36" wide. Furnished in three weights with nails and cement:

Light—Approx. 35 lbs. per square.

Medium—Approx. 45 lbs. per square.

Heavy—Approx. 55 lbs. per square.



## J-M TRANSITE

**A fireproof, permanent, asbestos-cement building sheet of unexcelled resistance to severest conditions of service**

Transite is generally recognized as the outstanding fire—and—corrosion-resisting building sheet on the market today. It is an unlaminated sheet of great strength and rigidity, and has a pleasing light gray color.

It can be drilled, punched or sawed. It does not become warped, distorted or weakened in service, and it offers high resistance to acid fumes and severe weather conditions. Paint is not required as a preservative, but can be applied if other than the natural color is desired.

Transite is often used to give the effect of stucco in half-timber construction. It is an ideal material for the construction of bungalows and summer cottages, particularly in heavily wooded sections subject to forest fires. It is also furnished cemented to both sides of Insulating Board, combining fire protection and insulating value. In this form it is known as Transite-Encased Insulating Board.



Transite—Size, 36" x 48" and 42" x 48", in thicknesses from  $\frac{1}{8}$ " to 4"; and in two sizes, 42" x 96" and 48" x 96", in thicknesses from  $\frac{1}{8}$ " to 2". Special sizes within these limitations can also be supplied. Weight approximately 124 lbs. per cubic foot.

Transite-Encased Insulating Board—Sizes, 42" x 96" and 48" x 96", and in smaller sizes on special order.  $\frac{1}{8}$ " Transite cemented to sides of  $\frac{1}{2}$ " or 1" Insulating Board. Weight approximately 4 lbs. per sq. ft., with  $\frac{1}{2}$ " Insulating Board.

## J-M BUILDING ACCESSORIES

**HOUSE SHEATHING**—A heavy weight sheathing, made of prepared roofing, saturated and coated. 36" wide. Packed in rolls containing 200 square feet, weighing approximately 60 lbs. per roll. No nails or cement furnished.

**ASBESTOS SLATERS FELT**—For sheathing houses and as a liner under asbestos shingles, tile or slate. 32" wide. Made of high-grade asbestos felt, saturated with asphalt. Furnished in rolls containing three squares, and weighing approximately 45 lbs. per roll.

**ASPHALT FELT**—An asphalt-saturated rag felt used as a liner under shingles, slate or tile, and as a sheathing. 36" wide. Furnished in four weights: 12, 14, 15 and 30 lbs. per sq. 12-lb. weight furnished in rolls containing 432 sq. feet, weighing approximately 52 lbs. 14-lb weight furnished in rolls containing 432 sq. feet, weighing approximately 60 lbs. 15-lb. weight furnished in rolls containing 432 sq. feet, weighing approximately 65 lbs. 30-lb. weight furnished in rolls containing 216 sq. feet, weighing approximately 65 lbs.

**IMPROVED WEATHERTITE BUILDING PAPER**—A new type of building paper that is stronger, though lighter in weight. Waterproof, weatherproof; will not crack or bleed. Odorless and verminproof. 36" wide. Furnished in rolls containing 500 sq. feet. Standard weight, approximately 12 lbs. per roll; medium weight, 16 lbs. per roll; heavy weight, 24 lbs. per roll.

**REINFORCED BUILDING PAPER**—Two plies of kraft paper, cemented together and reinforced with a  $\frac{1}{2}$ -inch mesh of strong cord. Waterproof, windproof, cannot tear. Furnished in 36" rolls, containing 500 square feet, and weighing approximately 33 lbs. per roll.

**ASPHALT OR TARRED SLATERS FELT**—An inexpensive sheathing, used as a liner under roofs and on the walls of houses, barns and sheds. 36" wide. 500 square feet per roll. Weight approximately 30 lbs. per roll.

**TARRED THREAD FELT**—A tarred, waterproof, sheathing felt, with 9 threads running lengthwise of the sheet to prevent tearing. It is waterproof, wind-proof and does not rot. 36" wide. In rolls of 250 square feet, weighing approximately 21 lbs., and in rolls of 500 square feet weighing approximately 42 lbs.

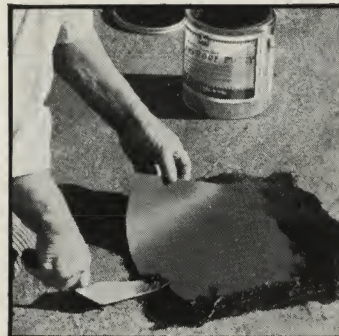
**No. 2 TARRED SHEATHING**—A high-grade, waterproof, tarred sheathing felt. Windproof, moisture-proof, does not rot. 32" wide. Furnished in rolls containing 432 sq. feet and weighing approximately 65 lbs.

**ROSIN-SIZED SHEATHING PAPER**—An inexpensive sheathing paper, for sheathing houses, protecting new wood-work, etc. Furnished in weights of 4, 5, 6, and 8 lbs. per 100 square feet; approximately 20, 25, 30 and 40 lbs. per roll of 500 square feet.

**BLUE PLASTER BOARD**—A heavy weight, dry sheathing paper, colored light blue, used for lining walls in inexpensive house construction, and also as a sheathing paper. 36" wide. Furnished in rolls of 250 and 500 square feet, weighing approximately 30 and 60 lbs. respectively.

**DEADENING FELT**—High quality unsaturated rag felt for use in walls and floors to keep out sounds and drafts. Also used under linoleum. 36" wide. Made in three weights:  $\frac{3}{4}$  lb., 1 lb. and  $1\frac{1}{2}$  lbs. per square yard. Approximately 450 square feet per roll. Weight per roll: approximately 38 lbs. for  $\frac{3}{4}$ -lb. felt, 50 lbs. for 1-lb. felt and 75 lbs. for  $1\frac{1}{2}$ -lb. felt.



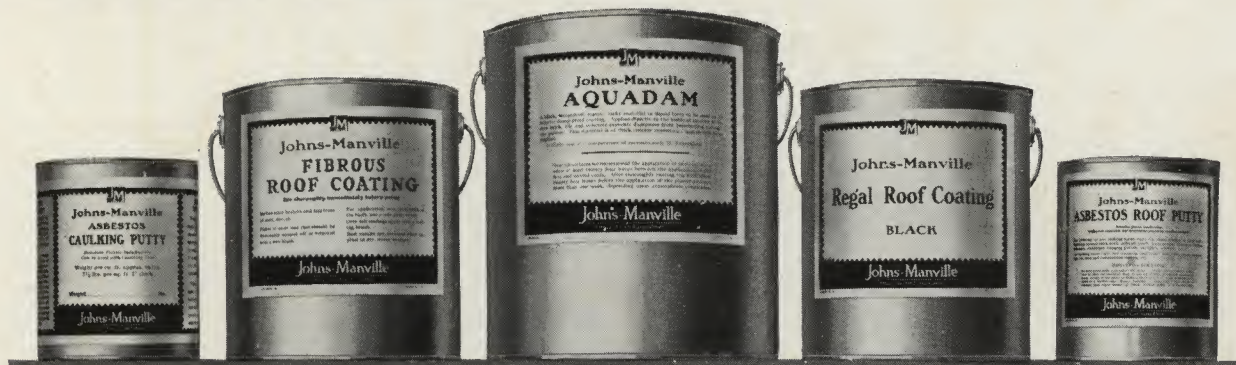


## ROOF COATINGS, PUTTIES, ETC.

# J-M ROOF COATINGS, PUTTIES, CEMENTS & WATERPROOFING MATERIALS

Johns-Manville manufactures a complete line of repair and waterproofing materials, including roof coatings for the restoring of wood, metal and composition roofs; putties for patching and pointing up roofs and flashings; and waterproofing materials for both foundation and roofing work.

Each material has been developed for the specific service it must give, and has been proved most effective over long periods of actual use.



**ASBESTOS ROOF PUTTY**—A high-grade roof putty made of asbestos fibre and asphalt. Used for patching leaky roofs, constructing and repairing flashings, and other purposes. Furnished as follows:

**Black**—Cans: 1, 5, 10, 25 and 45 lbs. Drums: 135 and 500 lbs.  
1 and 5 lb. cans packed 24 per case, weighing 37 and 165 lbs. respectively.  
10 lb. cans packed 12 per case, weighing 160 lbs.  
25, 45, 135 and 500 lb. containers shipped individually. Weights, 30, 50, 155 and 550 lbs. respectively.

**Gray**—Cans: 1, 5, 10 and 35 lbs. Drums: 60 and 175 lbs.  
1 and 5 lb. cans shipped 24 per case, weighing 37 and 160 lbs. respectively.  
10 lb. cans shipped 12 per case, weighing 145 lbs.  
35, 60 and 175 lb. containers shipped individually. Weights, 40, 65 and 195 lbs. respectively.

**Red**—Cans: 1, 5, 10 and 25 lbs. Drums: 50 and 150 lbs.  
1 and 5 lb. cans shipped 24 per case, weighing 37 and 160 lbs. respectively.  
10 lb. cans shipped 12 per case, weighing 155 lbs.  
25, 50 and 150 lb. containers shipped individually. Weights, 30, 55 and 170 lbs. respectively.

**Green**—Cans: 5, 10 and 35 lbs.  
5 lb. cans shipped 24 per case, weighing 160 lbs.  
10 lb. cans shipped 12 per case, weighing 155 lbs.

**Brown**—Cans: 5, 10 and 35 lbs.  
5 lb. cans shipped 24 per case, weighing 160 lbs.  
10 lb. cans shipped 12 per case, weighing 155 lbs.

**ASBESTOS CAULKING PUTTY**—A plastic asbestos waterproofing material that will not dry out. For setting wood and metal door frames, skylights, scuttles, copings, etc.; for pointing up cracks in masonry, and for miscellaneous caulking. Furnished as follows:

**Cans:** 1, 5, 10, 35 and 60 lbs. Drums: 175 lbs.  
1 and 5 lb. cans packed 24 per case, weighing 35 and 150 lbs. respectively.  
10 lb. cans packed 12 per case, weighing 145 lbs.  
35, 60 and 175 lb. containers shipped individually. Weights, 40, 65 and 195 lbs. respectively.

Made in two grades: knife grade (for putty knife or trowel), and gun grade (for use with caulking gun). Specify grade desired.

**AQUADAM**—A black, elastic, tacky material for cold application. Used to keep dampness out of masonry, hollow tile, etc. Applied inside exterior walls above grade, it provides a damp-proof film.

Furnished in 1, 5, 25 and 50 gal. containers as follows:

1-gal. cans packed 6 per carton, weighing 60 lbs.  
5, 25 and 50-gal. containers shipped individually, weighing 45, 225 and 430 lbs. respectively.

**ASBESTOS FIBROUS ROOF COATING**—A high-grade roof coating made of asbestos fibres and asphalt of the right consistency for brush application. For coating old roofs of all kinds with a durable covering. Made with the asbestos fibre *ground* for a smooth coating, and *unground* for use where the roof is in bad condition.

Furnished in 1, 5, 30 and 55-gallon containers, as follows:

1-gal. cans packed 6 per case, weighing 60 lbs.  
5, 30 and 55-gal. containers shipped individually, weighing 45, 290 and 525 lbs. respectively.

**REGAL ROOF COATING**—A non-fibrous asphalt coating. Prolongs life by penetrating the body, and restoring waterproofing qualities.

Furnished in 1, 5, 25 and 50-gal. containers, as follows:

1-gal. cans packed 6 per case, weighing 60 lbs.  
5, 25 and 50-gal. containers shipped individually, weighing 45, 225 and 430 lbs. respectively.

**LAP CEMENT**—Similar to the cement packed in each roll of prepared roofing, but put up in various size packages for general use.

Furnished in 1-pint and 1, 5, 25 and 50-gal. containers, as follows:

1-pint cans packed 72 per case, weighing 100 lbs.  
1-gal. cans packed 6 per carton, weighing 55 lbs.  
5, 25 and 50-gal. containers shipped individually, weighing 45, 225 and 450 lbs. respectively.



# THE CATALOG OF **JOHNS-MANVILLE**

# BUILDING MATERIALS



## JOHNS-MANVILLE

Executive Offices: 22 EAST FORTIETH STREET, NEW YORK

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*Let's see now...* WE WANT  
TO USE PLENTY OF  
**GLASS**

IN OUR NEW HOME

•  
IT MAKES THE HOUSE SO  
BRIGHT AND CHEERFUL

This book contains many practical suggestions offered by

**ABBEEY • OWENS • FORD GLASS COMPANY • TOLEDO, OHIO**





Because so much can be done with glass, both in construction and decoration, we believe that you will find these pages a valuable guide in planning those distinctive touches that lift a home above the average and make it an attractive, inspiring place in which to live and entertain one's friends.





//

. . . Out of windows we walk onto lawns in summer and meet men and women, and in winter windows are drums for the splendid music of storms that make us feel so masterly 'round our fires. But for windows, we should have to go out-of-doors to see the daylight. After the sun, which they serve, I know of nothing so beneficent as windows. Fie upon the ungrateful man who has no window-god in his house, and thinks himself too great a philosopher to bow down to windows. May he live in a place without windows for awhile to teach him the value of windows. As for me, I will keep the high worship of windows till I come to a windowless grave. //

HILAIRE BELLOC









# Everywhere YOU SEE A MORE GENEROUS USE OF GLASS IN THE HOME ● ●

● What is essentially a new type home has come into existence in recent years. Its dominant characteristic is more and larger windows, but the increased use of glass by no means stops with the windows. Inside, you find a very liberal portion of the wall space specially planned for mirrors. Sun porches and solaria are almost always integral features of design. And the decorator carries on, when the architect's work is done, with mirror topped and glass topped tables, with many incidental mirrors on the wall, with mirrored screens, glass and mirrored acces-

sories and a score of other details based on glass. Almost everywhere, glass is receiving the recognition to which its beauty and practical utility entitle it, not alone as a building material but as a decorative medium ideally suited to express the many moods and phases of a new era in gracious living. In planning your new home, you are sure to find numerous ways in which a more generous use of glass will add to its attractiveness. The following pages may suggest a few that would not ordinarily come to mind.



**LIBBEY • OWENS • FORD**  
**QUALITY GLASS**



# Let's start in the

## LIVING ROOM



*There are few things prettier than small, colorful house plants placed on plate glass shelves in a window.*

● Design and decoration are vitally important because they delineate the character of the person responsible for them, expressing either taste and discrimination or disclosing the lack of those qualities. The possibilities of expression in these two arts are greatly enhanced by a use of glass. No other material offers utilitarian, aesthetic and psychological values to the same degree.



*Mirror panels for light switches offer sparkling little spots of brilliance as well as an effective means of eliminating finger smudges from the wall.*



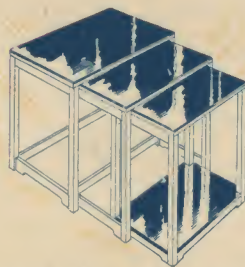
*Mirrors that completely frame a fireplace, in addition to the over-mantel type, are noted in many distinctive homes.*

It has become the very keynote of decoration and design. In the living room, for instance, where contact between the family and the outside world is a major consideration, plenty of mirrors and liberal window areas create the stimulating, lively air that the purpose of the room requires. There is no place in it for gloomy corners, dark walls and shadowed ceilings. Those relics of

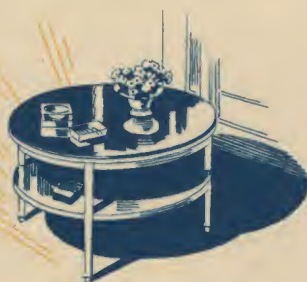




yesterday have flown in a flood of sunlight. In their place, has come a cheerful room. Windows welcome one's entry, warm one's stay, leave pleasant memories that draw one back again. Picture Windows, those generously proportioned expanses of polished plate glass that frame one's favorite view and make it seem a marching mural on the wall. Corner Windows, those brilliantly glazed



*A nest of tables is always an asset from the purely practical viewpoint. When they have bright, gleaming glass or mirror tops, they rise above mere utility.*



*Glass tops on casual tables are easy to keep clean and provide efficient protection for the finish.*

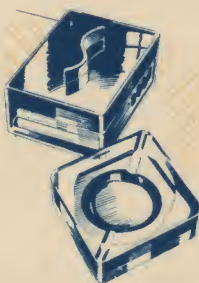
surfaces, meeting at right angles, that brighten interior corners where shadows used to hover. Window Walls, those continuous banks of adjoining windows and glass doors that appear to bring the out-of-doors into the interior of the home. Glass in the walls, as windows, sets the theme. Glass on the walls, as mirrors, makes the room brighter and seem much more spacious.



The skillful hand in decorating can do just as many tricks with mirrors as a stage magician, and get just as arresting results. For instance, the sunlight streaming through a window is thrown about the room by a wisely placed mirror. One could almost believe that mirrors persuade the sun to enter. Mirrors repeat designs and create a room pattern where none has existed before. They draw each re-



*Mirror panels between two windows create the illusion of one double size glazed surface.*



*Mirrored accessories are very much in vogue. Cigarette boxes, ash trays, waste-baskets and the like all lend themselves splendidly to this effective treatment.*

flected area into it, unifying the ensemble with a frame. All in all, their virtues are so many and their possibilities so infinite that to overlook the value of mirrors is to neglect the most effective decorative media available today. By all means, use them generously in the living room. Combined with ample windows, you will be exceedingly pleased with the results.







*In the*  
**DINING  
ROOM**

*Some say it is flavoring • Some say sauces • Some say wine . . .*



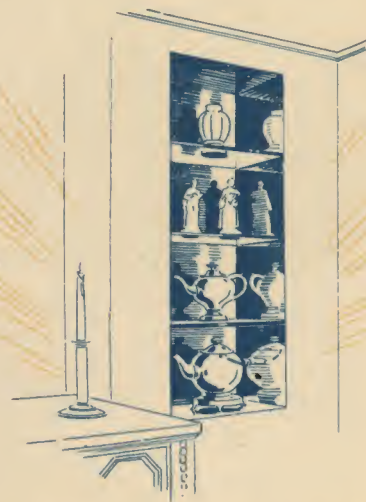
.. Whatever one says, however, everyone is bound to agree that the dining room itself is instrumental in tempting both the appetite and the company gathered at the board. For that reason, mirror topped tables are enjoying a decided and well merited vogue. There is something about an upside down reflection, no matter how familiar the object reflected, that is delightfully different. This is especially true in the dining room, for the lure of fine silverware, china and crystal is doubled when guests see them once upon the table and again reflected in its brilliant surface. Everything in this room should be conducive to dining comfortably and with relish. There should be plenty of light from large windows for the daytime meals; soft, but effective illumination after dark. The lighting fixtures are important. Much can be done with mirrors in the fixtures themselves as well as on the walls and as accessories. A mirror may be hung so that it reflects a bit of the outdoor land-



*Mirrored accessories about the dining table are just as important and effective as they are in any other room in the house.*



*If your room is not built to accommodate a niche, hanging corner shelves of mirrored glass create a similar effect.*



*Glass shelves in mirrored niches set off and add lustre to anything placed upon them.*

*What a cheery spot for breakfast! It cannot help but elevate the spirit to a plane in keeping with the light and airy atmosphere. It is easy to conceive one's pleasant reaction to such surroundings.*

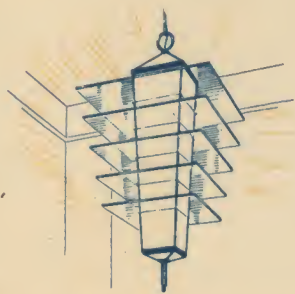




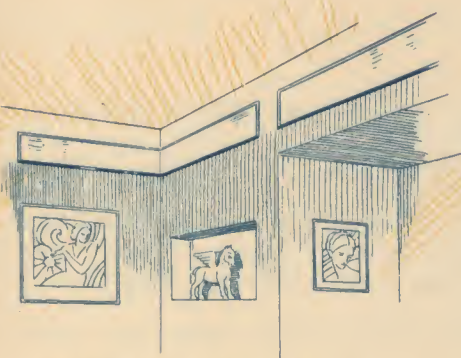
*This dining room shows a decidedly modern tendency. Instead of the customary partition between it and the entrance to the kitchen, an obscure glass screen is used. Behind the screen are two glass aquaria, one built into the wall, the other with a marine-decorated glass panel above it.*



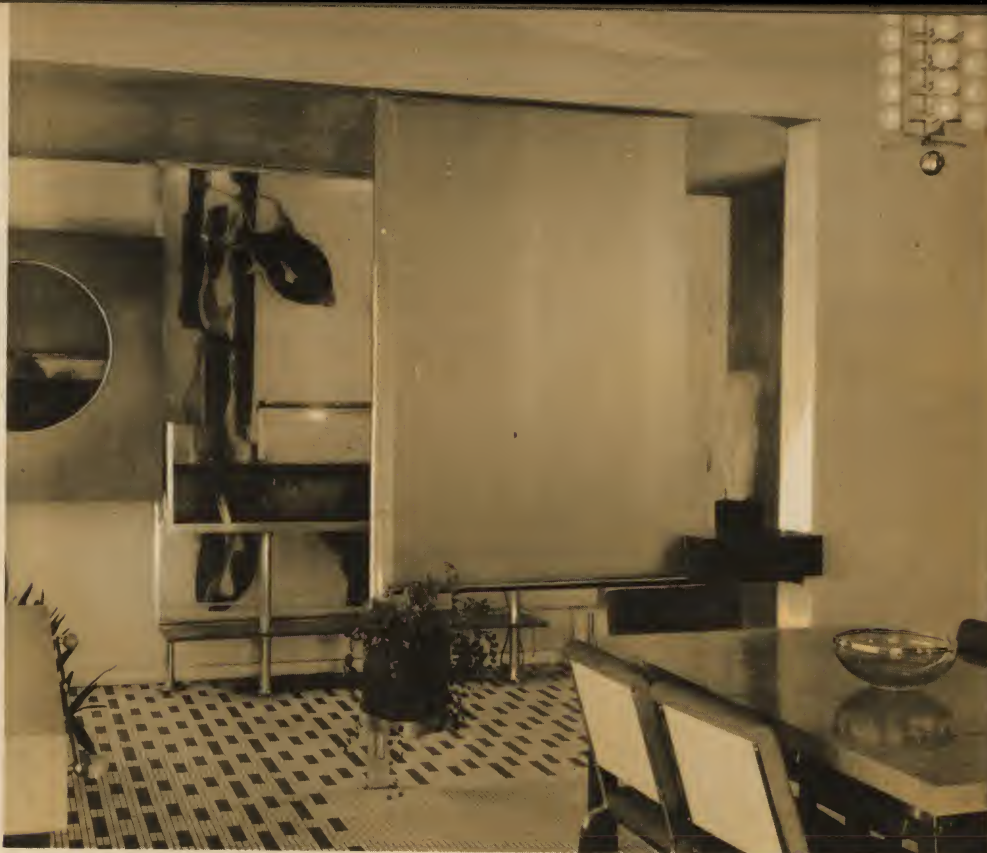
*A glass pushplate on the door to the kitchen is very practical and also serves a decorative purpose.*



*Glass in lighting fixtures offers innumerable interesting possibilities that challenge one's ingenuity.*



*Indirect lighting through glass panels near the ceiling is a pleasant and effective innovation.*



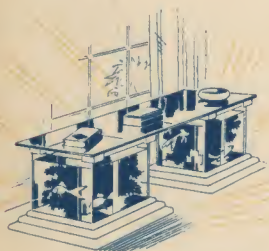
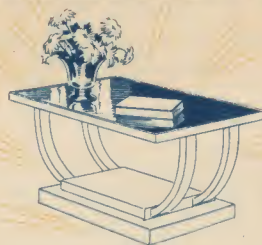
scape and in this sense becomes a picture. It may be used to reflect a needed bit of color or to catch the daylight and thus brighten a part of the room that would otherwise be lifeless. At night, whether they are used on the table top, on the wall or in both places, mirrors produce a mellow re-duplication of artificial lights. It may be well to consider indirect lighting through a glass lighting panel near the ceiling, here as well as in the living room, for indirect lighting is soft, flattering and actually relaxing. It is perhaps the nearest form to candle light, though far more practical, and well deserves the added attention it is now receiving in home design. Small niches lined with either mirrors or clear polished plate glass, for instance, will set off your most prized possessions to their best advantage. Do not be afraid of using too much glass in your dining room.





*The*  
**SUN PORCH**  
*and, of course,  
 the games room*

There are endless possibilities in casual tables that adopt glass as the basis of design.



An aquarium is delightfully effective and a splendid hobby for one who enjoys those funny little fish.

If you have one in your games room, a bar is not really a bar unless it has the familiar panel mirror behind it. Many modern fixtures are faced with glass or mirrored glass, as well.



● A sun porch is essential in every modern home. Here, and in the recreation room, glass plays a major and perfectly obvious role as far as large windows and mirrors are concerned. The relatively minor uses of glass in these important rooms, however, merits considerable attention. Glass topped end tables, stands and coffee tables are desirable not only because of their decorative value but because they do not ring and are so easily cleaned. Glass ornaments and accessories are exceedingly effective. Here you will find a true opportunity to let glass tempt your ingenuity.





## GLASS GAINS NEW GLORY WITH COLOR

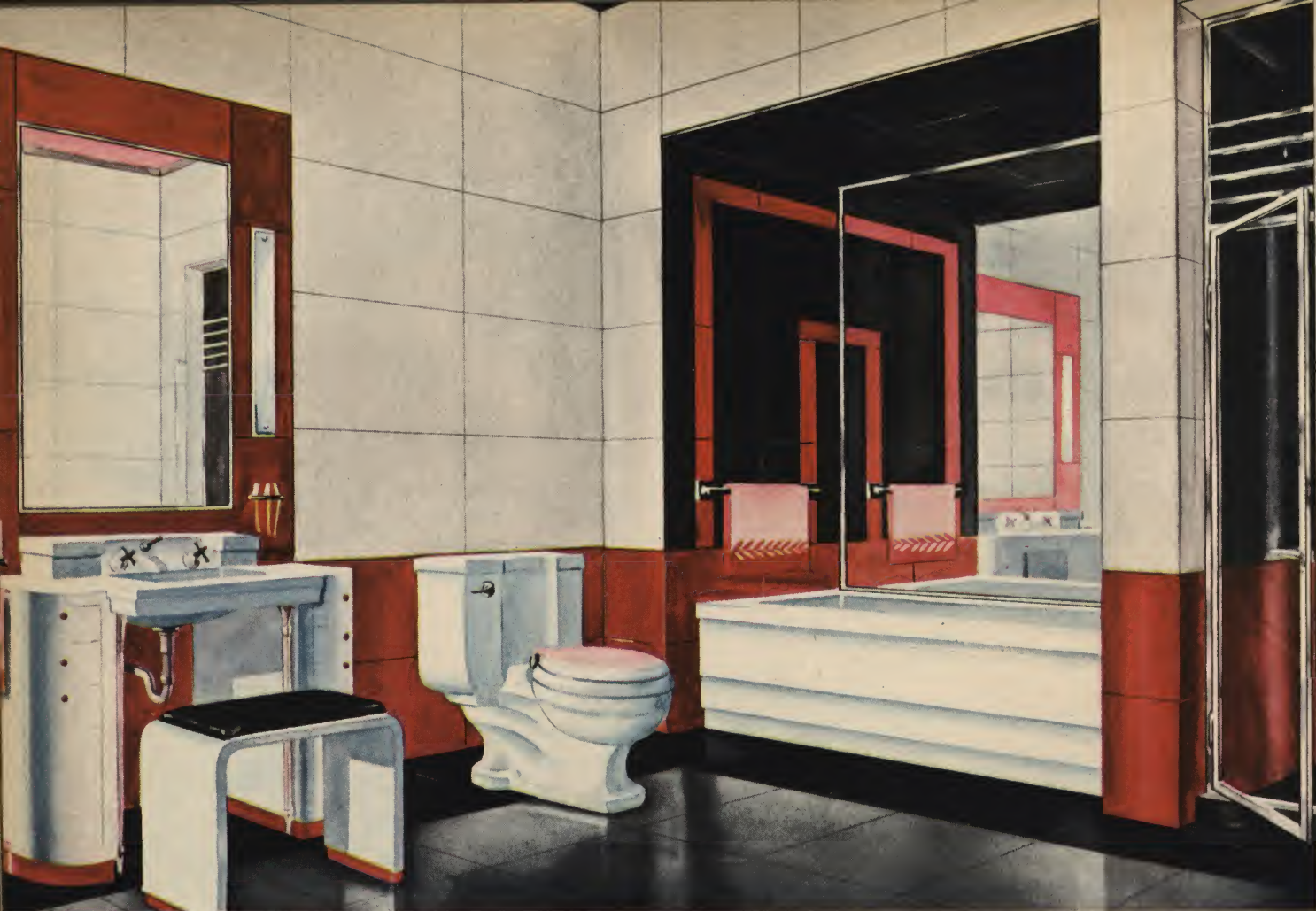
● All the bright, enduring, beautiful uses of glass described in the previous pages, and in those that follow, are magnified in effectiveness by the new colors in which L·O·F Polished Plate Glass is now available. You can select shades in your mirrors that enhance the colors of your rooms and reflect them with added richness and warmth. You can choose colors for your mirror-topped tables to blend or contrast with the decorations on them. You can use colored Plate Glass in dozens of other ways that may be suggested

either by the text and illustrations of this book or by your own ingenuity. Any L·O·F glass distributor will gladly inform you on the full range of colors and assist you in making the most effective use of this newest decorative medium for your home.

**LIBBEY · OWENS · FORD**  
**QUALITY GLASS IN**

*Colors*





*A most unusual combination of decorative charm and refreshing tranquillity is demonstrated in this Vitrolite bathroom of grey, red and black.*

# VITROLITE

## *the colorful structural glass for modern* BATHROOMS *and* KITCHENS

- Sixteen striking hues to choose from or combine—ten solid colors, six rich agate shades—many two-tone sand-blast, inlay and color-decorated effects—all in this brilliantly beautiful structural glass with its permanent brightness and luster. Vitrolite does not absorb odors and the flint-like surface will not check or craze. A damp cloth is all that is ever required to reveal it in all its original charm. Include Vitrolite bathrooms and a Vitrolite kitchen in your plans and make





*This kitchen, a model of completeness in arrangement and equipment, is made permanently beautiful with Vitrolite walls of jade agate and ivory, trimmed with emerald agate.*

your home infinitely more livable, more attractive. The ease and economy with which Vitrolite may be installed is an important feature of this rich and beautiful product of the Libbey · Owens · Ford Glass Company. The L · O · F Distributor in your vicinity will gladly build up for you, in actual Vitrolite, a sample section

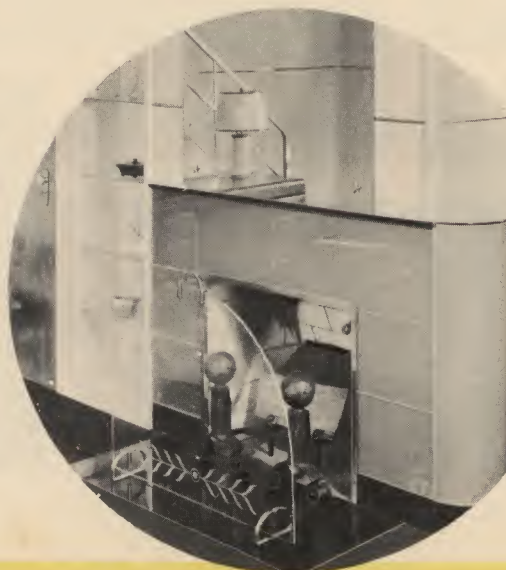
of wall in the color schemes you select.

Be sure to see this demonstration of how effective colorful and modern Vitrolite will look in your home.

# VITROLITE

A LIBBEY · OWENS · FORD

*Product*



• **VITROLITE** may be used in conjunction with various types of flat glass to create many striking and unusual effects. In the distinctive fireplace arrangement shown at the left, the hearth is black Tuf-Flex Vitrolite, the facing is red Vitrolite with a black glass base and the mirror is peach color plate glass. The fire screen is of Tuf-Flex tempered plate glass.

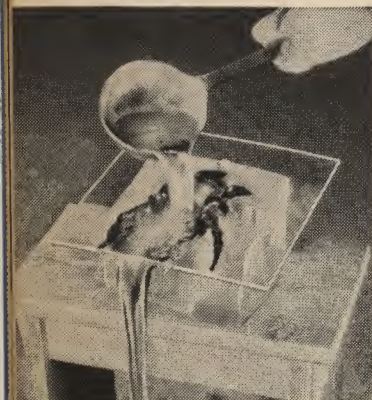
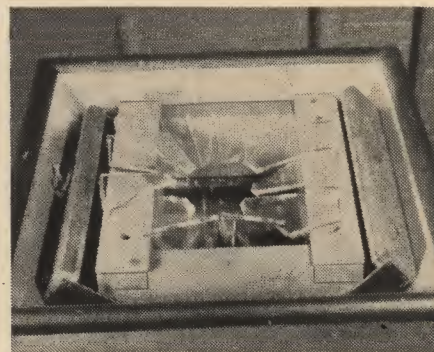
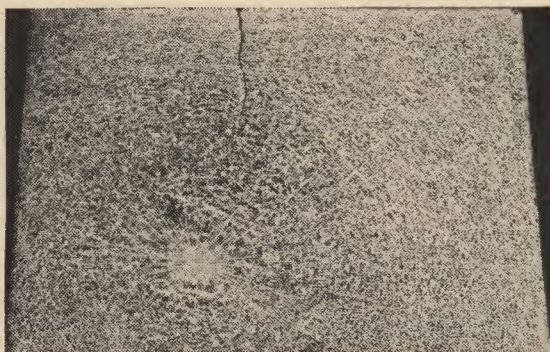
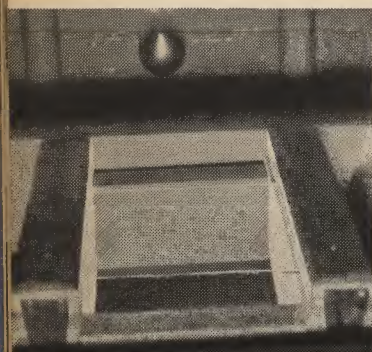


# TUF-FLEX

## TEMPERED PLATE GLASS

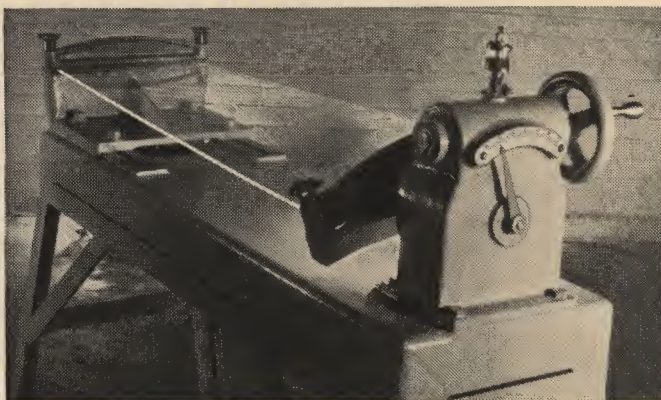
● This new kind of glass is much stronger than regular plate glass, more flexible and more resistant to shock. It is NOT a laminated glass (like Safety Glass used in automobiles) but is a single piece of plate glass specially treated to give it the unusual physical properties that recommend it for use where the possibility of breakage is an important factor with which to contend. Tuf-Flex is ideally suited for glass shelving in open bath-rooms, alcoves, closets and book cases; for table tops that get a great deal of service; for drain boards, because

the Tuf-Flex glass is strong enough to stand the hard usage and heat shock, yet has the ease of cleaning peculiar to glass. Bath screens and fire screens may be made of Tuf-Flex. Vitrolite may be tempered into Tuf-Flex Vitrolite, thus increasing its strength, resistance and flexibility. The illustrations below show some of the most important characteristics of Tuf-Flex tempered Plate Glass. Any Libbey · Owens · Ford glass distributor will be glad to discuss its application with you in detail.



● **ABOVE:** The photograph on the left shows a 2-pound steel ball bounding back from a 12 x 12-in. light of  $\frac{1}{4}$ -in. Tuf-Flex, after a drop of 5 ft. At the right, from less than 1 ft., the same ball shatters a similar light of  $\frac{1}{4}$ -in. regular plate glass. The center photograph shows the manner in which Tuf-Flex disintegrates when the limit of resistance is reached.

● **BELOW:** At the left, Tuf-Flex does not break when molten lead is poured on it, even though the  $\frac{1}{4}$ -in. light rests on a cake of ice. Regular plate glass, similarly tested, shattered instantly. At the right, a 12 x 48-in. light of Tuf-Flex twists through an angle of 20 degrees without failure. Regular plate glass of the same size and thickness failed at 7 degrees.



**TUF-FLEX . . . A LIBBEY · OWENS · FORD PRODUCT**





*An ingenious dressing room arrangement in which a wall panel swings open to expose a full length mirror. On the inside of the panel are drawers and glass enclosed shelves.*



*Glass drawer fronts on a closet chest are not only decorative but a practical convenience as well.*



*Glass and mirror tops for dressers and vanities protect the finish, provide an ideal surface and add to the richness of the room.*



*A mirror screen is one of the most attractive major accessories that can be employed.*

# The BEDROOM

Extensive glass areas are definitely the trend and glass well merits the added emphasis now placed upon it as a basic material of construction. The reflective quality of a mirrored surface, besides its primary utilitarian function as a looking glass, is a most serviceable and effective tool in the hands of a competent decorator. Everyone knows that mirrors increase the apparent spaciousness of a room and brighten dark corners, that mirrors bolster a drooping room by the reflection of lights and by throwing back important colors. These are decorative values no other material possesses. And the range of mirror uses today is almost infinite compared with the limited forms of other days. The use of colored plate glass for mirrors gives a pleasing softness of reflection. Several attractive colors are available to blend or contrast with other objects in the room. The uses of glass



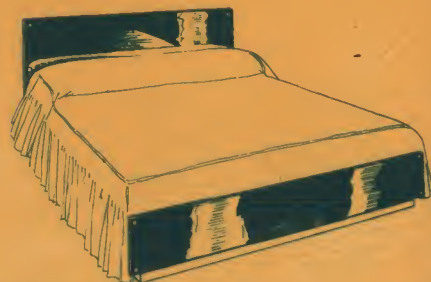
in the bedroom are many and varied. They range from the dominant beauty of a picture window to the cheerful little note introduced by the most incidental accessory in which glass or mirrored glass is used. Remember that this is your room, more than any other room in the house. You share the rest with family and friends and seek in them an effect that will please others as well as yourself. In the bedroom, there is no necessity to consult or consider any taste but your own. Of course, by its very nature, this room calls for a treatment conducive to sleep and rest, to the maintenance of a quiet, peaceful atmosphere, to the more private and intimate life of its occupant. The use of glass should be restrained but none the less generous, for there are few things more appealing to the senses than the broad vistas pictured through generously proportioned windows or the framed reflections of tastefully chosen furniture and fixtures. The decoration of a



*The corner window of this room is especially effective and creates a spacious air that is enhanced by the circular mirror above the bed. The beauty and appeal are heightened by the clever drapes.*



*A clever arrangement of doors that open into a triple mirror is an inexpensive luxury that will be appreciated by every member of the family.*

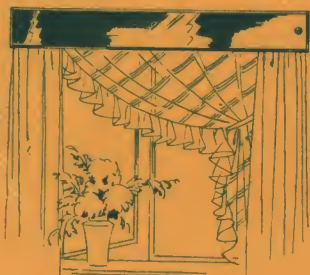


*Mirror headboards and footboards for beds, either decorated or plain, are an unusually effective touch that lends a very superior air to the room.*

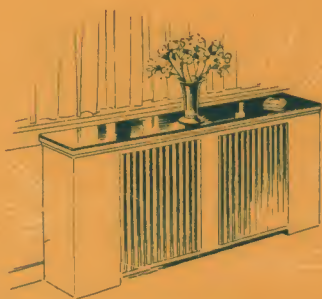




*The vanity in the modern bedroom is much more than a purely utilitarian piece of furniture. It can easily be made the central motif about which the rest of the room revolves.*



*The attractiveness of a mirrored curtain valance well repays one for thinking of this distinctive treatment.*



*Mirror radiator covers are another relatively incidental use of the mirrored surface that gives a splendid result.*

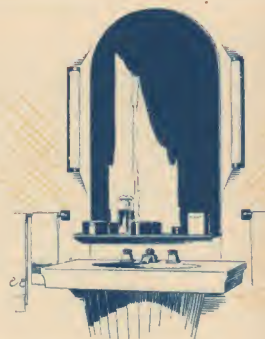
room is an art that has a language all its own. The individual who understands this language can read between the lines so cleverly that the thoughts and character of a person may be fully told by a single glance at the room this person occupies. The qualities that may be expressed are of the most varied nature. They include not only the personality of the person who lives in it, but the nature of the materials available, the spirit of the times, the atmosphere of thought and tradition allied with the owner and the purpose of the particular room in question. No medium of expression, today, is quite as suitable or as flexible as glass in meeting these many requirements. The intelligent use of glass surfaces, both plain and mirrored, challenges and awakens the alert mentality and at the same time sets it unconsciously at rest, creating a definite sensation of satisfaction and pleasure in a room in which glass is used with considered generosity.



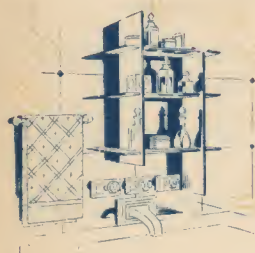
# The BATH



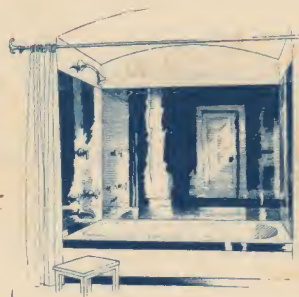
*Mirrored panels of polished plate glass add brilliance and cheerfulness to this bathroom.*



*A large mirror above the lavatory is essential in every well designed bathroom.*



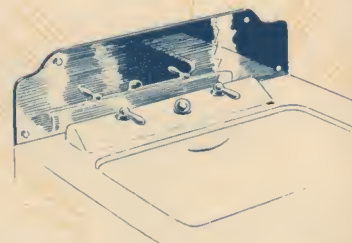
*Glass shelving is obviously the thing to use in the bathroom.*



*Mirrored walls around the tub are practical and beautiful.*



*A full length mirror in the bathroom door is desirable.*



*A glass splash board behind the basin is attractive and lightens the task of cleaning.*





*Metal-framed plate glass doors are a practical and attractive means of separating the washing and toilet facilities.*



*Obscure glass screens separating the sunken tub from the shower compartment and the balance of the room.*



*Plate glass doors for stall showers are very practical.*

● As in the rest of the house, a generous use of both plain and mirrored glass has elevated the bathroom to a new plane of beauty and convenience. Everything is designed for practical utility and, in its design, achieves a rare and distinctive beauty of its own. In keeping with modern design the windows are large. The use of one of the several types of blinds or curtains assures ample privacy when desired. Another means of attaining this end without loss of light is to glaze the windows with one of the many attractive patterns of figured glass. The interior of the bath of today fairly glistens with glass. The walls are bright and clean, and easy to keep clean, when faced with structural glass or mirrors. The most elaborate and intricate floral designs, or panels in color or plain silver, may be sand blasted in the glass. A mirror

over the basin goes without saying, but the man of the house will be grateful for a large one. The use of new and more sensible lighting fixtures and the proper placement of the mirror in relation to daylight are important considerations that will add greatly to the usefulness of this important accessory. Metal framed doors of polished plate glass are often used to separate the various facilities of the room. The stall shower with a glass door is a great convenience and aids in giving the room a neat appearance. Several other effective uses of glass are illustrated on these pages. Note, particularly, the obscure glass screens on either side of the sunken tub. In the bath, where the lighting is usually brighter than in other rooms, insistence on high quality of the glass will be reflected in added beauty and distinction.



# The KITCHEN



*A mirror for the maid is a minor investment  
that is bound to pay dividends in a more  
satisfied worker.*

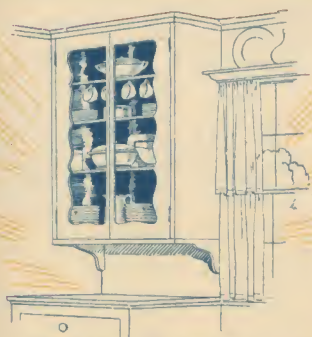
● Contemporary design rescues the kitchen from the comparatively lowly role it played in former years, dignifies it with new beauty and makes it especially notable for daylight brightness on a par with any other room in the house. This is a logical, practical evolution. Just as modern factories are daylighted with large window areas, so the kitchen, which is in reality, a domestic workshop, is now commonly







*Glass shelves that hang in the window and move up and down with it are both practical and attractive.*



*Glass doors for cabinet space make it easier to find what you want and add to the spic and span appearance you expect in your kitchen.*



*A glass top for the kitchen table is sanitary, practical and decorative, all in one.*

marked by unbroken window walls wherever such construction is at all possible. The two examples illustrated are typical of the current trend. The remarkable part is that this great change in the kitchen has come about not through the expenditure of more money, but simply at the expense of a little more thought and ingenuity in planning. The cost remains practically the same as that of the old-style, poorly lighted room that made work in the kitchen a thankless drudge.





*Modern Winter Windows are hinged at top and can be opened for ventilation and cleaning. When closed they create a dead air space between themselves and the regular window. Dead air space is practically a non-conductor of heat.*

*If your windows are not permanently double glazed*

# BE SURE TO PROVIDE FOR STORM SASH

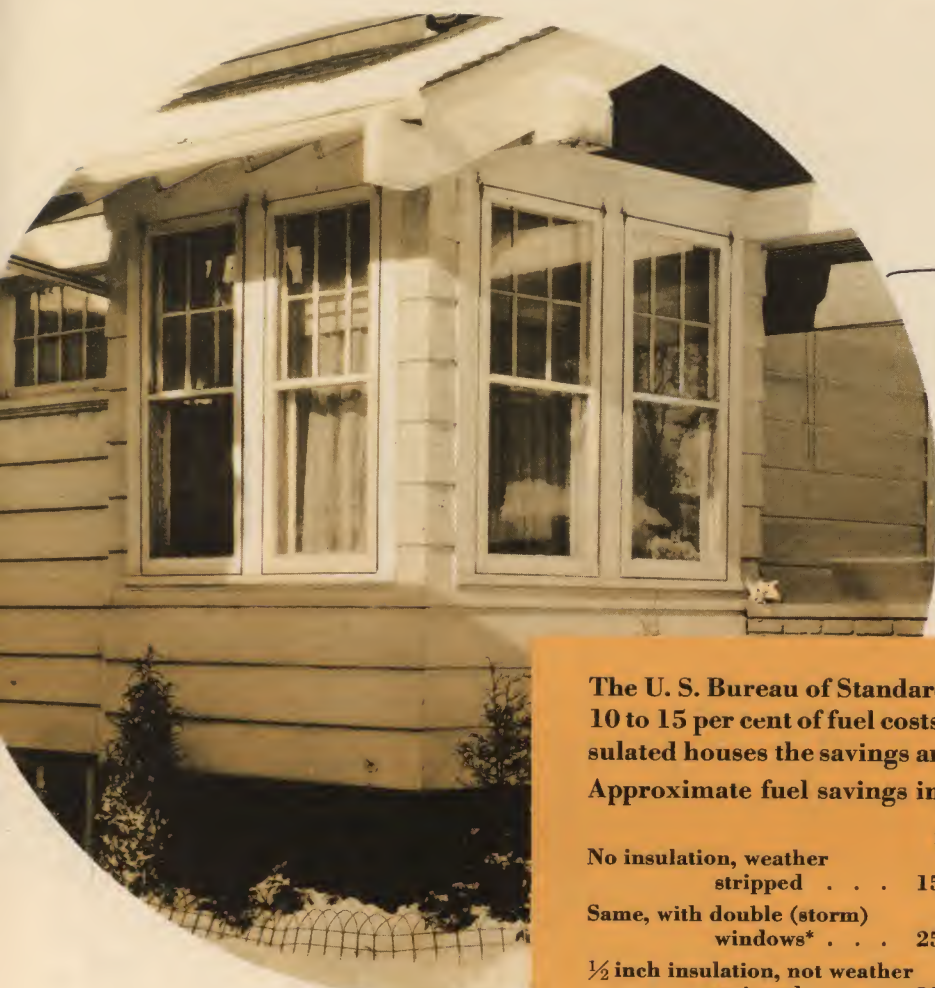
Winter Windows, the common name for storm sash, are EXTRA windows placed on the OUTSIDE of your regular windows, forming a DEAD AIR SPACE between the panes of glass. Since dead air is practically a non-conductor of heat, Winter Windows keep heat inside on cold days, preventing its dissipation through the windows. This results in a substantial saving in the amount

of fuel required to keep your rooms at a comfortable temperature in winter. Figures released by the U. S. Bureau of Standards (see table) give approximate fuel savings. Tests recently conducted by A. P. Cratz and S. Konzo in the research home maintained by the University of Illinois furnish a practical illustration. Using a coal-fired furnace with a forced-air heating sys-



tem, the research house was maintained at a temperature of 71 degrees Fahrenheit by thermostat control during the testing period. The outside temperatures ranged from 40° above down to zero. Results showed that a saving of 20 per cent (or one ton of coal out of every five burned) could be reasonably attributed to the installation of storm doors and windows. Other results of these tests were that storm sash practically eliminates the entrance of soot; that higher relative humidity can be maintained indoors before

condensation appears on the glass; and that storm sash reduces the draft of cold air down the windows and thus increases the temperature of air near the floor. By all means, include well-made Winter Windows in your plans. They last for years and practically pay for themselves in the fuel they save. Permanent double glazing, of course, is even more desirable than detachable storm sash and is essential if your home is air-conditioned. Do not fail to discuss it with your architect.



*Storm Sash is an attractive addition as well as a practical means of saving money on fuel.*

*Winter windows*

## REDUCE THE COST OF HEATING



The U. S. Bureau of Standards reports that Winter Windows save from 10 to 15 per cent of fuel costs in houses with no other insulation. In insulated houses the savings are reported as being as high as 60 per cent. Approximate fuel savings in dwelling houses:

	Saving Per Cent		Saving Per Cent
No insulation, weather stripped . . .	15 to 20	½ inch insulation, with double window*	About 50
Same, with double (storm) windows* . . .	25 to 30	1 inch insulation, weather stripped . . .	About 50
½ inch insulation, not weather stripped . . .	20 to 30	1 inch insulation, not weather stripped . . .	30 to 40
½ inch insulation, weather stripped . . .	About 40	1 inch insulation, with double windows*	About 60

Taken from circular of the U.S. Bureau of Standards No.376, entitled Thermal Insulation of Buildings.

\* "Double Windows" ARE WINTER WINDOWS



## SELECTING THE RIGHT GLASS . . .

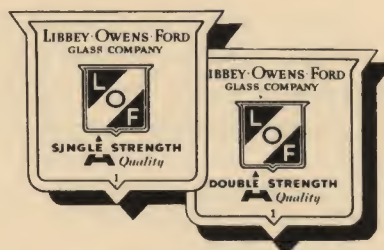
*DON'T take it for granted*

● The current movement in house design puts a new emphasis on the importance of selecting the right glass for specific purposes. ● The following brief outline may help you in selecting the right product of Libbey-Owens-Ford for each specific purpose. It is a concise summary of current glazing practice: ● "A" Quality Labeled Double Strength Window Glass is generally used in glazing the more modest residence. However, even in smaller homes, when large window areas are specified, the owner will be wise to use L·O·F Polished Plate Glass. It adds surprisingly little to the cost of the home and adds immeasurably to its appearance. ● For mirrors, you want, of course, the very finest L·O·F Polished Plate Glass. This is known as "Silvering Quality" and is used almost exclusively in making fine mirrors. The next quality, "Mirror Glazing", is often used for high-grade glazing work. Most of the plate glass used in glazing, however, is called "Glazing Quality". Definite requirements for tolerances in thickness and dimensions are set up by U. S. Government specifications. For bathrooms and kitchens, you will probably combine clear glass and plain or colored mirrors with Vitrolite. Used on the walls, this colorful structural glass creates an almost unbelievably beautiful appearance and is very easy to keep clean, retaining its brilliant luster indefinitely. For shelves, fire screens and other special uses

mentioned on page 16, places in which greater than normal strength, resistance and flexibility are desirable, Tuf-Flex is the logical medium. ● If you contemplate an air-conditioning system in your home, be sure you discuss with your architect the question of double glazing, which is highly desirable. Here, you may want to use AKLO, a heat-absorbing glass of special chemical composition. Ask about it. ● The above outlines, in a very general manner, the applications to your new home of the complete line of flat glass products made by Libbey-Owens-Ford. In glazing, whether L·O·F Window Glass or L·O·F Polished Plate Glass be used, it is advisable to see that your architect's specifications for glass are complete and positive. Below are the proper specification forms:

**WINDOW GLASS**—All Flat Drawn Window Glass shall be Libbey-Owens-Ford "A" Quality Double Strength, except as otherwise noted, packed in Cushion Corner Cap Boxes. Each light shall bear the Libbey-Owens-Ford label, indicating strength and quality of the glass.

**PLATE GLASS**—Where polished plate glass is specified or shown on plans, it shall be manufactured by the Libbey-Owens-Ford Glass Company, and shall be of ( ) quality and ( ) thickness (insert quality and thickness) in accordance with U. S. Government Standards.



*For your protection each light of Libbey-Owens-Ford Window Glass bears a label indicating the strength and quality of the glass. It is a good plan to insist that they be left on the glass until the final inspection of the house.*





## LIBBEY • OWENS • FORD GLASS COMPANY

manufactures and distributes a complete line of flat glass. This includes the highest quality Polished Plate Glass available both colored and clear; Tuf-Flex Tempered Plate Glass, Flat Drawn Window Glass, Heavy Sheet Glass, Greenhouse Glass, Safety Glass, Vitrolite structural glass available in many colors, and the Figured and Wire Glass manufactured by the Blue Ridge Glass Corporation of Kingsport, Tenn. • Libbey • Owens • Ford Glass Company owns and operates eight factories. They are strategically located at Toledo, Ohio, Ross-

ford, Ohio, Charleston, W. Va., Parkersburg, W. Va., Ottawa, Ill. and Shreveport, La. • Leading glass distributors and dealers, conveniently located throughout the United States, warehouse and distribute the products of these plants. • Direct factory sales representatives are located in New York, Boston, Atlanta, Minneapolis, Milwaukee, Chicago, Philadelphia, Kansas City, Detroit, Shreveport, Buffalo, San Francisco, Los Angeles, Cincinnati, Seattle, Dallas, Denver and Richmond, Va. • The executive offices of the company are located at Toledo, O.





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